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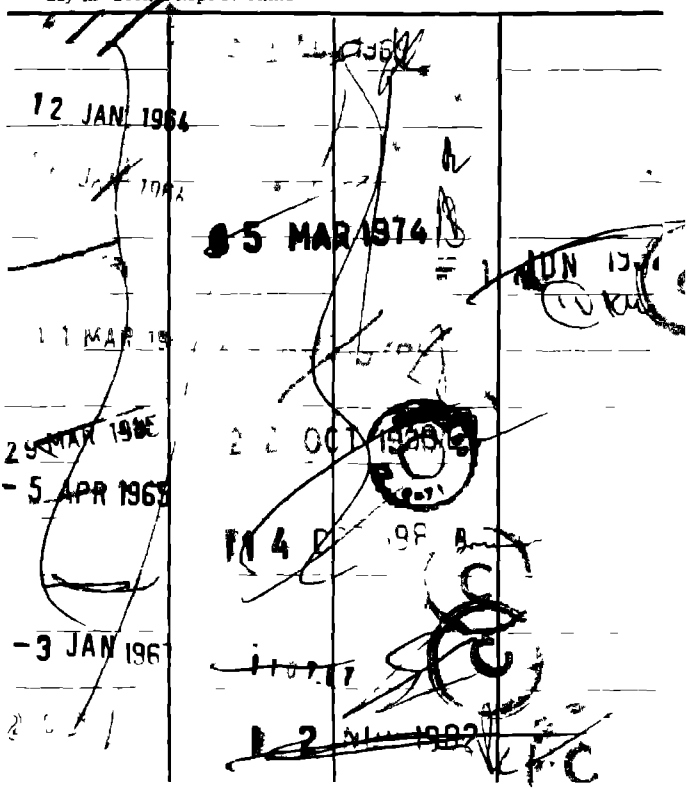

APPLETON SERIES IN SUPERVISION AND TEACHING

EDITED BY

A. S. BARR AND WILLIAM H. BURTON

SUPERVISION

The authority of those who teach is often an obstacle to those who wish to learn

—Cicero

Few of us take the pains to study the origin of our cherished convictions indeed we have a natural repugnance to so doing We like to continue to believe what we have been accustomed to accept as true and the resentment aroused when doubt is cast upon any of our assumptions leads us to seek every manner of excuse for clinging to them The result is that most of our so called reasoning consists in finding arguments for going on believing what we already do

—James Harvey Robinson

SUPERVISION

DEMOCRATIC LEADERSHIP IN THE IMPROVEMENT OF LEARNING

by

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Preface

The current period in history presents challenges of fateful import to all who are engaged in education whether in school or elsewhere The method of meeting these challenges, the degree of success achieved in solving them will inevitably affect the destiny of our society

First, this revolutionary period is seeing the emergence of fundamental changes in our western society and civilization, in fact in all societies and civilizations Questions of ultimate aims, of values, and of discrimination between social trends, engage even the average citizen Education emerges ever more clearly as a basic social force which participates in preparing succeeding generations to live in and to manage a dynamic, emergent, and revolutionary social order Education thus ultimately plays a part in shaping the future

Second the great body of knowledge produced by research in biology, medicine anthropology, psychiatry and other sciences has profoundly modified our concepts of human nature and of its infinite possibilities The growth and development of the learner becomes of paramount importance Coercion and the moulding of the learner to conformity are not compatible with our new knowledge We are challenged to face courageously the implications of all these new discoveries The administration and supervision of schools, the whole setting for learning, must be changed basically and radically

Third, the obvious and tragic need for revitalizing moral values calls even more widely for far-flung changes in education and for social invention in developing new forms The widespread immorality, or more properly unmorality, of our society, particularly of our economic and political leaders is a genuine threat to our society The challenge to education in all its manifestations is direct and inescapable

The authoritarian and coercive school must give way to a democratic institution that achieves its ends through cooperation and participation of all concerned Democratic administration and supervision are necessary to accompany the democratic processes that are characteristic of the modern schoolroom

The authors, to the best of their ability, have tried to show how the principles of democracy, the findings of science, and the implications of trends within our dynamic social order may be utilized in a theory and

practice of supervision The basic concept of traditional supervision, imposition of training and guidance upon teachers, is replaced by the view that supervision is a cooperative enterprise in which all persons work together to improve the setting for learning The first edition of this volume, published in 1938, was well advanced along this line The present volume, we hope, has been freed from limitations and inconsistencies in the presentation of a wholly democratic policy and process Any inconsistencies found will be, in the honest belief of the authors, concerned with minor questions of technique and not with basic principles Each author has contributed passages, some of them extensive, to chapters written by a co-author All chapters were worked over three or more times by the authors and by a considerable number of practical schoolmen Responsibility for given chapters, however, was definitely placed Chapters I, II, III, IV, IX, XIII were written by Mr Burton, Chapters VI, VII, X, XI, and XIV, by Mr Brueckner, Chapters V, VIII, XII, XV, XVI, and XVII, by Mr Barr

Sincere thanks are due to many persons for important assistance of varying types The contributions of many graduate students at Harvard University at the Universities of Minnesota and Wisconsin, are gratefully acknowledged Contributions from many writers are acknowledged in footnotes throughout the volume Mrs Emily Kauppi, one time Teaching Fellow, Harvard Graduate School of Education, and now a Curriculum Coordinator in the San Diego, California, schools, was of great assistance in developing materials for and in expressing critical judgments on Mr Burton's chapters Dr Witt Blair, one time Teaching Fellow at the Harvard Graduate School of Education and now Director of Training Schools at DeKalb, Illinois Teachers College, made definite contributions to the chapter on administrative organization Miss Alice Miel of Teachers College, Columbia University, read the chapters on the curriculum and made definite contributions Dr M H Willing and Dr Lois Nemec, of the University of Wisconsin, and Dr Gordon Mackenzie, of Teachers College, Columbia University, read the chapter on objectives and the one on facilitating teacher growth, making important suggestions Dr W W Cook of New York University gave assistance through reading the chapter on appraisal of the educational product

Special acknowledgment is made of the editorial assistance of Miss Vera Ambrose, formerly teacher of English in the Senior High School and Director of the Evening School of Secretarial Studies at Lynn, Massachusetts Special thanks are due to Miss Dorcas Bishop of the Harvard School of Education Library for tireless assistance over a long period of time Miss Elizabeth Hodges, secretary to Mr Burton, assisted with the index, kept working files straight, and, not the least of her tasks, kept straight the correspondence among three determined and argumentative co authors and an equally argumentative company editor!

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L J B

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Part I

THE BACKGROUND OF MODERN SUPERVISION

I

The Nature and Scope of Supervision

What is supervision? What are the specific activities carried on by supervisors? For what purpose are these activities carried on? Is supervision always exercised on or toward teachers or may teachers participate in supervision? Is supervision concerned with the improvement of curriculums and instructional techniques, or may it be concerned also with factors far removed from the classroom? Must supervision flow from the top down? Could it flow upward from the personnel or outward from the situation? Could it be reciprocally interactive?

Great changes are to be observed over the years in the philosophy, the objectives, the functions and techniques and in the outcomes of supervision

Supervision appeared early Almost as soon as schools were established in the northeastern Colonies, the selectmen of the towns were directed by the General Courts to secure teachers of certain religious and moral qualities Nothing was said about inspection or supervision of schools The next step was, in the early 1700's, specifically in 1709 in Boston the appointment of committees of citizens to visit and inspect the plant and equipment and to examine pupil achievement Not until many years later was mention made of inspecting the teacher's methods, criticizing them and advising him concerning teaching Until about 1714 the committees were made up largely of ministers, and learning was a qualification for membership Between 1714 and 1719 using Boston as an illustration both ministers and selectmen served on these committees, thus indicating the beginnings of public responsibility for inspection From about 1721 on the committees were made up of selectmen and 'others whom they invited" At first the committees were concerned largely with the Latin grammar schools, but as time went on, they widened their scope to include all schools and the function of criticizing and advising the teacher [1]

[1] Records of Governor and Company of the Massachusetts Bay in New England Reports of Record Commissioners of the City of Boston

Elmer E Brown, *The Making of Our Middle Schools* (New York, Longmans, Green & Co 1903)

Henry Suzzallo, *The Rise of Local School Supervision in Massachusetts*, Contributions to Education No 3 (New York, Bureau of Publications, Teachers College Columbia University 1906)

As towns and cities grew, schools increased in size until several teachers might be teaching in one building The head teacher or principal teacher was singled out and given certain administrative and managerial duties Supervisory duties were not allocated to principals until comparatively modern times, and we are even yet in process of making the principal an important supervisory officer Another hundred years passed, and in the second quarter of the nineteenth century a new officer, the *superintendent of schools*, appeared There was considerable opposition from boards of education to this office since the boards were jealous of the administrative and supervisory functions then vested with board members The new officer was at first, and for a long time a minor administrator Today he is the executive-in-chief of the school system There is still much carry-over from early practice and still an imperfect demarcation between the functions of lay board and superintendent The leadership of the superintendent is reduced practically to zero in those areas, notably sections in New England and the deep South, where the lay board retains the administrative function

Still later in the last quarter of the nineteenth century, officers known as *special supervisors* appeared [2] selected usually from the special teachers of the new subjects then entering the curriculum The problems and procedures growing out of the ever increasing staff of supervisory officials will be treated at length in Chapter III

Early definitions vague Truly modern supervision grew up largely during the first quarter of the present century and it is with this period that we shall be chiefly concerned Prior to this era the functions of supervision were very few and were largely general oversight of teaching procedures and of classroom management. Neither laws and board rules nor professional publications contained anything but the most vague and general statements Early definitions were meaningless and today appear positively humorous

> The business of a supervisor is to cast a genial influence over his schools but otherwise he is not to interfere with the work
>
> Supervision is taking the broad view, the general view and seeing the back and middle grounds as well as the foreground with its details Supervision is the vision in the old and beautiful sense of seeing things invisible

Definitions become more concrete One of the first definitions which was helpful in pointing the scope of modern supervision was that of Elliott [3] (We would not today use the word "control")

> Supervisory control is concerned with *what* should be taught, *when* it should be taught to *whom*, by *whom*, *how*, and to what *purpose*

[2] F C Ayer and A S Barr *The Organization of Supervision* (New York, D Appleton Century Company, Inc 1928), Chs 1-4

[3] E C Elliott *City School Supervision* (Yonkers on Hudson, N Y World Book Company 1914) p 12

This is a good statement indicating in general terms certain definite aspects of the teaching-learning situation which should receive attention from supervisors Details were still lacking, though beginning to be worked out in practice

The first modern statement and concept was presented by Burton in 1922 Supervision is concerned with [4]

1 The improvement of the teaching act (classroom visits, individual and group conferences, directed teaching demonstration teaching, development of standards for self improvement etc)
2 The improvement of teachers in service (teachers meetings professional readings, bibliographies and reviews bulletins, intervisitation self-analysis and criticism, etc)
3 The selection and organization of subject matter (setting up objectives studies of subject-matter and learning activities experimental testing of materials, constant revision of courses the selection and evaluation of supplementary instructional materials etc)
4 Testing and measuring (the use of standardized and local tests for classification diagnosis guidance etc)
5 The rating of teachers (the development and use of rating cards of checklists stimulation of self rating)

In the light of present knowledge we can see that this definition does not distinguish critically between major and minor functions There is apparent the persistence of the earliest ideas of supervision namely that it is concerned rather directly with improving the work of the teacher Though the "work of the teacher" is rather narrowly conceived nevertheless this was a step in advance and greatly stimulated many other efforts at definition

A statement by Dunn in 1923 sounded a note prophetic of developments which were unfortunately too long in coming [5]

> Instructional supervision therefore, has the large purpose of improving the quality of instruction primarily by promoting the professional growth of all teachers, and secondarily and temporarily by correcting deficiencies of preliminary preparation for teaching by the training of teachers in service

Her emphasis upon promotion of professional growth in teachers, though still focusing supervision on the teacher, was a distinct improvement over the older term, "improvement of teachers in service" This new emphasis was the first step on the road to the expanded modern concept of supervision and to greater democracy in its operation We would today change Dunn's term, "correcting deficiencies" to "aiding the teacher to study his own procedures," and to "developing the teacher's power to improve (correct) his work"

[4] W H Burton *Supervision and the Improvement of Teaching* (New York, D Appleton Century Company, Inc, 1922) Ch 1, pp 9 10

[5] Fannie W Dunn What Is Instructional Supervision" *Proceedings* of the National Education Association, Vol 61, 1923 p 763

SECTION 1

THE CHANGING CONCEPTS OF SUPERVISION

The purposes and philosophy controlling supervision have gone through a number of significant changes Supervision at first was largely *inspection* to determine the state of affairs Suggestions for improvement were present only indirectly The general attitude was that of *laissez-faire Coercion* at one time or another, naively or openly dominated supervision The *training and guidance* of teachers became dominant in comparatively recent times Today supervision is greatly affected by the increasing insight into the aim of education, the relation of education to the society in which it exists, by the scientific method, and by the democratic philosophy Today supervision is becoming *participatory and cooperative,* that is, *democratic,* is increasingly *oriented toward the fundamental aims of education and of society* Overlap, as well as some antagonism, exists between the various schools of thought Brief summarization of the older conceptions will, therefore be in order before we elaborate the desirable modern aims and principles

Supervision under laissez-faire. Teachers were to be inspected, rated, indexed The technique was inspection unaided by any objective controls The criticism or rating was as far as the procedure went If no improvement resulted, or if no detrimental situations developed—well that was not a matter of great concern If teachers wanted to improve, they were free to do so If they did not, nothing much was done unless serious trouble resulted, whereupon efforts were made not to improve the teacher or the situation but to eliminate the teacher This ancient and wholly reprehensible theory of supervision persists far more widely than is thought Lazy and incompetent superintendents and supervisors excuse their inability and failure to give leadership by saying that their teachers are left "free" they are not to be 'imposed upon," or "directed" A few even call this "democratic" supervision! It is nothing but good old laissez-faire!

Supervision as coercive This conception was a step away from laissez-faire It was stimulated by recognition of the definite lack of training and the low level of efficiency manifested by many teachers Teachers needed to be improved A natural conception of pre-democratic thinking was that coercion was the means to this end The aim and philosophy here are fairly obvious Truth is vested in "those whom God hath called to authority over us" Responsibility and authority also reside in the upper administrative levels Teachers are employees to carry out the directions of those who see the ends and who plan the achievement of those ends Learning is looked upon as a mechanical process which can be directed in definite grooves The teacher is *corrected* in her detailed *techniques* through the handing out of ready-made procedures The teacher is sometimes but not always introduced to the aims to be achieved This is prob-

ably as far as possible from the beginnings of democratic procedure under which the teacher is *assisted* with her own program of work, with the development of her own personality and creative ability, is *encouraged* to initiate programs of study and experimentation for the improvement of her work Wholly modern democratic supervision goes to the opposite of coercion and regards all educational workers as *co-workers* in the improvement of education

Two well known volumes early summarized the weaknesses of coercive supervision [6]

1 This concept assumes that there are known best methods of doing any thing These are in the possession of the supervisor and may be handed out to teachers It ignores the precarious uncertain, and experimental aspects of life and of education
2 This concept is destructive of personality values particularly of initiative and originality Repressions, inhibitions and even complexes may result
3 The concept sets up a highly improper relationship between supervisors and teachers Fear and distrust enter Insincerity and dishonesty result

The evils of coercive supervision have been amply proved by later writings, particularly by the scientific investigations of morale and of mental hygiene generally

Supervision as training and guidance An important step forward was made as this conception emerged That the upper administrative and supervisory levels know best is still retained as the principle Coercion, however, disappears in favor of guidance and training The guidance comes from above but there was clearly the thought that the training was for improvement—to be directed toward the betterment of the teacher himself as well as of his technique Personal and cultural development was indicated however dimly The improvement of personality was recognized as important There was as yet no clear recognition of the possibility of participation by the teacher or of freedom for experimentation as techniques of growth Self-development was not yet clearly seen The utilization of teacher leadership was not even dreamed of in the beginnings of this period A marked advance had been made however over earlier conceptions Training and guidance today dominate a great deal of supervisory effort The more recently developed type of cooperative and participatory supervision is increasing but not yet dominant

Supervision as democratic leadership A number of far-reaching influences, some of them well outside the technical field of education, have increasingly affected education in all its functions

The transitional crisis in civilization and the emergent social theory play a fundamental rôle The fundamental changes affecting Western society and civilization have brought sharply to the attention of the

[6] H B Alberty and V T Thayer *Supervision in the Secondary School* (Boston D C Heath and Company, 1931) pp 20 29
H R Douglass and C W Boardman, *Supervision in Secondary Schools* (Boston Houghton Mifflin Company, 1934), pp 25 27

average citizen in all walks of life, questions of ultimate aims and values of relation of means to end Sensitivity to and analysis of aims and values is steadily increasing throughout society The means of achieving desirable ends are under similar scrutiny Education is no exception Educational workers of all types are concerned with ultimate purposes and philosophies of life Many volumes dealing with the social scene and its problems are available

The effects upon education, hence upon supervision, have been great *First*, education is increasingly conceived as a basic social force concerned with the development of human personality and of a stable democratic social order Education is not a mechanical routine fulfilled through mechanical administration of details Supervision becomes a fundamental aspect of education and not the unthinking enforcement of techniques and courses of study *Second*, the necessary techniques of education and of supervision cannot be selected until remote purposes have been clearly understood *Third*, cooperation among all agencies of society which deal with childhood and with youth, with their protection and education is inescapable Supervision needs to become coextensive with or at least intimately related to the total setting for learning

Implications of some of the newer influences cannot be seen so easily as were the meanings of certain older and simpler factors Modern thinking, however renders untenable the belief that supervision is concerned with, if not in fact chiefly confined to, visiting teachers at work with limited programs of study by teachers, with recommending books, with diagnosing isolated classroom incidents, with supplying materials with rating teachers

The democratic philosophy encourages the new emphasis Philosophic inquiry has likewise extended the scope of supervision through its attention to ultimate aims and values Consideration of these was often limited or neglected under traditional concepts of supervision which were more concerned with immediate objectives and techniques

The democratic philosophy has had great effect also upon the attitudes and procedures within the scope of supervision Clarification of our philosophic concepts has made untenable the older relationship between leader and led, has shown the weakness of imposition and direction as techniques Democracy, aided here by scientific findings, clearly recognizes that leadership and creativity appear upon all levels and in all types of persons The chief effect of all this upon supervision has been a great rise in the use of cooperative procedures for the formulation of policies, plans, and procedures within supervision, and for the evaluation of these group-determined items All staff members are regarded as co workers on a common task All types of persons are being invited to contribute to the formulation of plans and decisions which affect them pupils, parents, community leaders and organizations, teachers, general and special supervisors administrators, and so forth Each person and group of persons

has a contribution worthy of respect, even though differing greatly in weight or importance

Supervision is affected by the science of education and by the scientific method The application of scientific method to the solution of social problems is one of the great advances of the present century Detailed analysis of this method, with statement of its values and limitations, is not our concern here and will be covered in Chapter XVII

The effect upon supervision as a part of education has been significant Effects upon method and materials in supervision are set forth in the following chapter on principles We are here concerned only with the effect of the science of education and its method upon the scope and definition of supervision The vast amount of scientific work in the immediate past has greatly increased our understanding of and sensitivity to the great complexity of the learning process and of the learning organism The range of factors which affect learning is truly great, many being far outside the school setting for learning The real subtlety of many factors affecting learning has become much clearer The concept of integration with its implications for unity in learning situations has had profound effect upon educational thinking The total environment must be considered and this consideration in turn calls for a very greatly extended field for supervision

Supervision increasingly derived from the situation instead of imposed upon it The influence of more critical thinking about education in general of increased use of the scientific method, of greater reliance upon the cooperative attitudes and methods of democracy have combined to bring about a supervision based upon and derived from a given situation rather than imposed upon that situation Early programs of supervision were and many today are planned by the upper levels and handed out to the teaching staff Many of these programs were valuable and helpful, accepted willingly by the staff Numerous research studies[7] testify, how-

[7] H J Bingham The Relation of Certain Social Attitudes to School Environment *Journal of Experimental Education* Vol 9 (December 1940) pp 187 191

Walter V Bingham How the Army Sorts Its Manpower *Harpers Magazine* (September 1942) pp 342 350

W H Burton The Teacher's Morale as an Important Factor in Teaching Success, *California Journal of Elementary Education* Vol 6 (May 1938) pp 218 226

Robert I Cralle and W H Burton, An Examination of Factors Stimulating or Depressing Teacher Morale *California Journal of Elementary Education,* Vol 7 (August, 1938) pp 7 14

John Dollard and others, *Frustration and Aggression* (New Haven Conn Yale University Press and London Oxford University Press 1940)

J David Houser *What People Want from Business* (New York McGraw Hill Book Company Inc 1938) An important and valuable study

G Robert Koopman Alice Miel and Paul J Misner *Democracy in School Administration* (New York D Appleton Century Company Inc 1943) A valuable pioneer textbook Should be widely read by administrators and supervisors

Kurt Lewin, Ronald Lippitt, and R K White Patterns of Aggressive Behavior in Experimentally Created Social Climates' *Journal of Social Psychology,* Vol 10 (May 1939), pp 271 299

ever, that greatly improved teaching and learning results from programs based upon the problems, purposes and needs existing within the given situation and recognized by the workers therein Extensive and note worthy research studies show also great gains in morale and in mental health resulting from cooperatively derived programs These studies were also a valuable contributing factor in the shift itself

Supervision is affected by the constant upgrading of teacher-training The focus for years has been upon training teachers in service because of the obvious fact that teachers were lamentably, even dangerously, under-trained That the leadership which undertook to train the teachers was little better off was overlooked due to our undemocratic concepts Teachers were required to take extension and summer courses but principals, supervisors, and administrators were not One result has been that in many given areas a respectable number of teachers are better trained than their supposed leaders The slow but contant upgrading of training has contributed to two important changes Improvement in service is coming to apply to the total staff The focus is on the situation or setting for learning and not on persons A vivid, cooperatively determined attack upon local educational problems is one of the best in-service training procedures known It has the additional merit of stimulating all staff members to study and growth *The improvement of teachers is not so much a supervisory function in which teachers participate as it is a teacher function in which supervisors cooperate*

The shift in emphasis should not mislead anyone into thinking that teachers supervisors, or administrators are yet, in the main, well trained We have far to go on this road, and training-in-service for teachers will be an important aspect of supervision We desert the limited concept 'improvement of teachers in service' for the broader and more fundamental one, "improvement of the staff in service ' Coupled with the emphasis

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Elton Mayo *Human Problems of an Industrial Civilization* (New York The Macmillan Company 1933)

W I Moser and J D Kingsley, *Public Personnel Administration* (New York Harper & Brothers, 1936)

O H Mowrer Authoritarianism *vs* Self Government in the Management of Children's Aggressive (Anti Social) Reactions as Preparation for Citizenship in a Democracy' *Journal of Social Psychology*, Vol 10 (February 1939) pp 121 126

Effective Educational Leadership, Sixth Yearbook of the Department of Supervisors and Directors of Instruction (Washington D C National Education Association 1933)

Supervision and the Creative Teacher Fifth Yearbook of the Department of Supervisors and Directors of Instruction (Washington D C National Education Association, 1932)

F J Roethlisberger and others *Management and the Worker* (Cambridge, Mass Harvard University Press 1939) An account of the monumental research conducted at the Western Electric Company Hawthorne Works, Chicago Ill begun in 1927

Goodwin Watson The Surprising Discovery of Morale, *Progressive Education*, Vol 19 (January 1942) pp 33 41 An interpretive description of the Western Electric study with applications to education

H G Wells *The Anatomy of Frustration* (New York, The Macmillan Company, 1936)

upon self-initiated and self-directed programs of study and development, the "improvement" function of supervision takes on a wider scope and a greater importance The concept of "growth" is increasingly replacing that of improvement"

SECTION 2

A MODERN DEFINITION OF SUPERVISION

What then is supervision today? A number of influences, it is clear, have affected supervision profoundly, particularly in recent years Modern supervision is far more extensive than that of an earlier day The basic principles and attitudes have changed greatly Trends previously outlined may be summarized

1 Supervision includes far more than in times past This is the result of ever more critical thinking about the nature of education and its relation to the individual and to society
2 Supervision is increasingly objective and experimental in its methods This stems from the scientific movement in education
3 Supervision is increasingly participatory and cooperative Policies and plans are formulated through group discussion with participation by all This is the result of increasing insight into the nature of democracy and democratic methods
4 Supervisory activities and opportunities are distributed among an ever larger number of persons as all come to contribute and to accept challenges to exercise leadership
5 Supervision is increasingly derived from the given situation rather than imposed upon it

These tendencies are reflected in the definition of supervision, the principles under which supervision operates, the administrative organization of supervision and the specific techniques through which supervision is implemented Each of these will be discussed in proper order in succeeding chapters Definition alone, for the moment, concerns us The authors present below a definition which they hope is not merely another definition, but one which reflects the advances made in educational thinking, and one which will stimulate analytic thinking toward further clarification of basic concepts in the field

A definition in outline form[8] Supervision is in general what it has been in modern times, an expert technical service primarily concerned with studying and improving the conditions that surround learning and pupil growth Everything in a school system is designed, of course, for the ultimate purpose of stimulating learning and growth. Supervision

[8] Many supervisors in the field and students suggest that the public relations responsibilities of supervision be included in the listing below Public relations are, as is being realized by all educational leaders a vitally important but sadly neglected aspect of school work The improvement of the socio physical environment included in the definition necessitates the constant advising and informing of the public Cooperative programs and cooperative councils in which the community is well represented are effective Constant use should be made of newspaper publicity, programs before the P T A women's clubs Rotary, Kiwanis and other service clubs exhibits forums etc These are mentioned in the appropriate chapters

deals with those items which primarily and rather directly condition learning and growth

Supervision is leadership and the development of leadership within groups which are cooperatively

1 Evaluating the Educational Product in the Light of Accepted Objectives of Education
   a The cooperative determination and critical analysis of aims
   b The selection and application of the means of appraisal
   c The analysis of the data to discover strength and weakness in the product
2 Studying the Teaching Learning Situation to Determine the Antecedents of Satisfactory and Unsatisfactory Pupil Growth and Achievement
   a Studying the course of study and the curriculum in operation
   b Studying the materials of instruction the equipment and the socio physical environment of learning and growth
   c Studying the factors related to instruction (the teachers personality, academic and professional training techniques)
   d Studying the factors present in the learner (capacity interest work habits etc)
3 Improving the Teaching Learning Situation
   a Improving the course of study and the curriculum in operation
   b Improving the materials of instruction the equipment and the socio physical environment of learning and growth
   c Improving the factors related directly to instruction
   d Improving factors present in the learner which affect his growth and achievement
4 Evaluating the Objectives, Methods, and Outcomes of Supervision
   a Discovering and applying the techniques of evaluation
   b Evaluating the results of given supervisory programs, including factors which limit the success of these programs
   c Evaluating and improving the personnel of supervision

The importance of self-supervision The age long tradition of imposed supervision together with the desirable modern emphasis upon cooperative group endeavor sometimes obscures one of the most important implications of modern philosophy namely, the possibility of self direction self guidance, self supervision The mature individual will not only serve as a leader in group enterprise, not only make contributions to group discussion and decision he will often engage in purely individual effort Experts do this when working independently on a frontier problem A member of the rank and file does this when he engages in study of his own needs, engages in try outs of new methods in his classroom pursues a problem of his own through the available literature Self initiated attention to any problem often, perhaps usually, grows out of group activities, and can hardly avoid producing a contribution to the group program

Mature educational workers possessed of active critical minds, of a realization of the importance of education, of a dynamic view of the universe will engage in self directed study as a matter of course Many interested and willing teachers need only encouragement and assistance to go to work independently on their own problems Many teachers not

yet confident enough to participate extensively in group projects will be greatly aided through independent study in developing greater security Individual growth and ability to participate are both stimulated

Contrasts between traditional and modern supervision The definition given above clearly breaks with the earlier narrower conception of supervision Traditional supervision has centered around the teacher and the classroom act and has been based largely on the thought that teachers, being lamentably undertrained need careful direction and training Visiting the classroom conferences teachers meetings were the bulk of supervision and in many minds synonymous with supervision Modern supervision in contrast is far more fundamental and diverse Characteristics may be summarized in outline form for brevity and clarity

1 Modern supervision directs attention toward the fundamentals of education and orients learning and its improvement within the general aim of education
2 The aim of supervision is the improvement of the total teaching learning process the total setting for learning rather than the narrow and limited aim of improving teachers in service
3 The focus is on a situation not on a person or group of persons All persons are co workers aiming at the improvement of a situation One group is not superior to another operating to 'improve' the inferior group
4 The teacher is removed from his embarrassing position as the focus of attention and the weak link in the educational process He assumes his rightful position as a cooperating member of a total group concerned with the improvement of learning

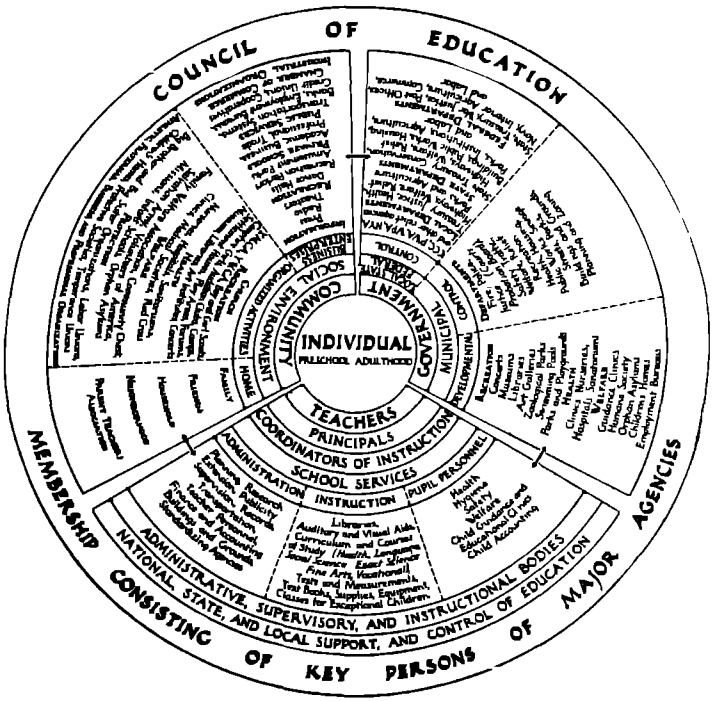
Traditional supervision too often did well things which should not have been done at all The new conception means that attention is centered more upon the aim structure and fundamental processes of education and less upon the minute specific, day to-day devices for the improvement of trivial aspects of classroom procedure With improved levels of teacher and supervisor training the invention, selection administration, and application of devices should become more and more a question of individual initiative based upon understanding of basic principles The sphere of modern supervision is the whole range of elements affecting learning

The following outline based on prominent catch words summarizes in succinct fashion the salient differences between the types of supervision

CONTRASTS IN SUPERVISION

Traditional	*Modern*
1 Inspection	1 Study and analysis
2 Teacher focused	2 Aim material, method, teacher pupil and environment focused
3 Visitation and conference	3 Many diverse functions
4 Random and haphazard or a meager, formal plan	4 Definitely organized and planned
5 Imposed and authoritarian	5 Derived and cooperative
6 One person usually	6 Many persons

Put into sentence form this means that, in the main, traditional supervision was largely inspection of the teacher by means of visitation and conference, carried on in a random manner, with suggestions imposed on the teacher through authority and usually by one person Modern supervision by contrast is the study and analysis of the total teaching-learning situation through many diverse functions operating through a carefully planned program that has been cooperatively derived from the needs of the situation and in which many persons participate.



ORGANISMIC SUPERVISION

From L J Brueckner and R H Koenker Organismic Supervision *Elementary School Journal*, Vol 40 (February 1940) pp 485 491 Published by the University of Chicago Press

The far flung relationships and activities of modern supervision will be developed throughout the volume A preliminary view can be obtained through scrutiny of the chart prepared by Brueckner and Koenker

Principles under which functions operate are vital One and the same set of supervisory functions, operated under different sets of principles,

would produce greatly varying results because of differing aims, means, and attitudes Extended treatment is given this problem in Chapter II, but, for the moment, we may reemphasize two points presented previously in this chapter The desirable principles are those of science and democracy, Supervision must use objective diagnostic techniques The evolutionary experimental attitude must permeate the whole activity The democratic attitudes and practices of participation and cooperation are equally fundamental Respect for personality and courteous reception of contributions of varying worth to the common task must be dominant The utmost facility for participation and creative individual contribution must be provided Authority when set up and used at all will be the authority of the situation determined and set up by the group Authority will be the authority of the group over itself, exercised for the good of the group delegated by the group to a person or persons and similarly withdrawn if not exercised toward the achievement of commonly conceived purposes The writers, as will be emphasized in the following chapter deliberately desert the traditional concept of authority substituting therefor the concept and techniques of responsibility and leadership

It is sincerely hoped that the new definition plus increasing emphasis upon democratic operation will aid in eliminating from our thinking the implications of inspection, rating, imposed improvement, and of the superiority inferiority relationship between groups of co workers The writers emphasize the possibilities in such terms as *educational assistant (consultant* or *adviser) technical assistant (consultant* or *adviser)* or *instructional assistant (consultant* or *adviser)*, for use in place of *supervisor* The term *helping teacher* was used in New Jersey but never became popular The term *consultant* does seem to be gaining in use and perhaps the time is ripe for a better term more in keeping with modern educational concepts

SECTION 3

SUPERVISORS DUTIES AND ACTIVITIES WHICH IMPLEMENT THE DEFINITION

The actual duties and activities of supervision may be determined through two lines of inquiry *First,* what do supervisors actually do? *Second,* what might supervisors do which they do not now do? A summary of supervisory techniques and practice may be derived from the objective analysis of present practice plus the activities suggested for use by teachers, administrators, and theorists

The listings derived from objective analyses of present practice are valuable but not final Records of practice while showing what is quite likely to be successful in the long run, and in ordinary circumstances, tend for that very reason to stress the traditional and the commonplace

Present practice is often mediocre practice, but is faithfully recorded as "successful" practice Valuable new departures are often overlooked since they rank low in a tabulation of average practice An objective study furthermore is only as good as the person making it Many observers turn in honest but limited compilations Interpretations are unimaginative Many reliable objective analyses of supervisory activities have been made however as will be seen below

The suggestions for desirable supervisory activities which come from teachers, administrators and educational leaders result from the sincere convictions of the individuals concerned These suggestions, in contrast to those derived from the objective analyses are subjective but nonetheless valuable Subjective statements are their only means for going beyond practice There are, moreover, some items for which objective data are *not* and *may never be* available The careful subjective analyses of competent, informed thinkers are as fundamental as the objective investigations The subjective analyses, like the objective, are only as good as the persons making them hence, it is essential to select from the statements of competent authorities

A composite table will be found at the close of this section giving a comprehensive listing of actual and desirable duties

Guidance from the early objective analyses of supervisory activities During the period approximately 1926 1930 there appeared a considerable number of excellent studies, notably those of Ayer, Barr, Brink Melby, and others[1]

Since then, very few studies have appeared, which probably indicates that the early studies supplied a fairly accurate and complete picture of supervisory practices Studies appearing recently are significantly different in *titling* and *emphasis* as *will* be seen *shortly* The *older* studies covered nearly all parts of the country and all types of school systems from rural to large city The activities of county and city supervisors, of general and special supervisors and of principals were analyzed Studies to evaluate

[1] A S Barr An Analysis of the Duties and Functions of Instructional Supervisors, A Study of the Detroit Supervisory Organization *Bureau of Educational Research Bulletin*, No 7 (Madison Wis University of Wisconsin January 1926)

F C Ayer The Duties of Public School Administrators series of articles in *American School Board Journal*, beginning February 1929

W G Brink *The Practices of City School Superintendents in Directing and Coordinating the Activities of Supervisors,* Doctoral Dissertation School of Education, Northwestern University 1930

E O Melby *A Critical Study of the Existing Organization and Administration of Supervision* (Bloomington Ill Public School Publishing Co 1929)

J M Hughes and E O Melby *Supervision of Instruction in High School* Northwestern University Contributions to Education, School of Education Series No 4 (Bloomington Ill Public School Publishing Co 1930)

The Superintendent Surveys Supervising Eighth Yearbook of the Department of Superintendence (Washington D C National Education Association 1930) Chapter I contains good exhibit of materials from many early studies

the use and worth of the individual techniques were also made A number of valuable facts and trends were uncovered

A distinct trend away from inspection and imposed improvement toward assistance, guidance, and coordination was noted as early as 1925 By 1929, much less of the supervisors' total time was being given to visitation than formerly This change in emphasis appears more often in large than in small systems as is perhaps natural Barr's study of the activities of special supervisors in Detroit showed increasing emphasis upon research, study, and office functions and less upon visiting the teacher Briggs analysis,[10] based upon many smaller systems showed much less attention to research and study, with more emphasis upon visiting the classroom

The trend away from confining supervision to classroom visitation and conference has continued steadily Actual first-hand contact with the classroom will be important always but it is not the most economical or effective method for the whole of supervision Many other functions now share the supervisors time The nature of visitation is itself changing Studies show that scheduled visiting while still necessary has been very sharply reduced Part of the time goes to the far more effective visiting on call Group conferences for study and attack on common local problems are steadily growing in importance and time consumed Research was hardly ever included in the earlier studies whereas today it has greatly increased particularly in medium-sized and large systems

Valuable guidance toward desirable supervisory techniques was found in studies of teachers judgments concerning use and effectiveness of various procedures Melby's early study[11] showed for instance, that teachers reported that only 12 per cent of the teachers who responded had experienced demonstration teaching as a supervisory technique but 64 per cent of the same total group regarded that technique as of great value Intervisitation has been experienced by but 8 per cent, but again 64 per cent rated this device as of great value Cooperative group study of various types had been met by but 9 per cent but was voted as very valuable by 45 per cent It is interesting to note here that a recent study of teacher evaluation of supervision (reported later) places this cooperative, participatory technique at the very top as the most valuable device

Unannounced visits to the classroom had been experienced by 58 per cent of the teachers but were regarded as very valuable by only 22 per cent Reporting of lesson plans was met by 51 per cent but regarded as valuable by but 32 per cent Required professional reading and or-

[10] Delia C Briggs *The Duties and Responsibilities of the Supervisor* Masters Thesis University of Chicago, 1925

R W Harris, *The Organization of Supervision* Masters Thesis, University of Wisconsin, 1925

T M Risk, *Supervisory Organization and Procedure in Public Schools*, Masters Thesis, University of Wisconsin 1925

[11] Melby *op cit*

ganized reading circles were rated very low (16 to 27 per cent) by teachers who at the same time rated very high (65 per cent in favor), the maintenance and availability of a professional library and magazine shelf Again we note the early trend toward voluntary study of self-recognized problems Other similar studies are available

Teachers evaluations on certain other items need careful interpretation One extensive study,[12] for instance, showed that teachers asked for very few items in 'improvement in service" and rated low those that were available Dozens of other items for which they did ask and valued highly were excellent improvement in-service procedures, though unrecognized as such by the teachers The teachers in this study asked overwhelmingly for "specific directions "practical procedures to be followed" They demanded overwhelmingly that supervisors stop talking in 'generalities' and "tell us specifically what to do!' These same teachers in another part of the investigation complained naively that a serious fault of supervision was that it "laid down procedures to be followed, demanded that 'teachers do as supervisors say!' This contradiction is explained through reference to training levels and to the unwitting use of clichés and slogans Teachers complain automatically about imposition but at the same time demand to be told what to do Better training and the increasing use of cooperative techniques will progressively eliminate this difficulty

Considerable latent leadership among the teachers is revealed by these early studies Teacher requests for certain types of supervisory assistance and teacher evaluations of services rendered clearly demonstrate good insight and desire for improved settings for learning Supervisory leadership is exemplified by those services offered to the teachers but not requested by them and later evaluated highly by teachers A number of the important needs in any situation is not always sensed by those directly concerned but will be recognized when presented properly

Guidance from current objective analyses of supervisory activities Present day analyses of supervisory activities strike a very different note from that of the earlier investigations Early studies accepted supervision as it was and proceeded to count and list activities The purposes for which these activities were performed were assumed, overlooked, or only hazily considered The circumstances under which the activities operated were often neglected Appropriateness of activity was rarely considered

Early studies were usually titled "duties and activities of general supervisors" and the like Current studies[13] use such terms as "trends in the

[12] *Current Problems of Supervisors, Third Yearbook* of the Department of Supervisors and Directors of Instruction (Washington, D C National Education Association 1930)

[13] William M Alexander *State Leadership in Improving Instruction,* Teachers College Contributions to Education, No 820 (New York Bureau of Publications Teachers College Columbia University 1940)

Oliver H Bimson *Participation of School Personnel in Administration,* Doctoral Dissertation University of Nebraska 1939

improvement of techniques in supervision," "problems of supervisory officers," "supervisory needs of teachers (or principals or supervisors)," "the teaching problems of 500 teachers (or the teachers of Plainville, or Newtown, or Crescent City), " "supervisory techniques for the stimulation of growth," "new forms of in-service training," "techniques for the analysis of personnel situations (of interrelations, or curricular problems, and so forth)," 'supervisory techniques appropriate to the new school," "changes in supervisory techniques "

Two significant developments appear in the later studies The local workshop is rapidly achieving a large place in supervisory programs The group study of self-defined problems in which all participate and in which leadership may be exercised by any member of the total staff is steadily growing in importance Participatory, cooperative procedures are supplanting the typical imposed techniques of earlier supervision Supervision increasingly exercises leadership and provides opportunity for leadership to arise, it aids in organizing study programs initiated by teachers by parent groups, or by any educational worker

A large number of the same minor supervisory activities appear in present day schools as in earlier ones The appropriate use of these and their relation to purposes, and not their mere appearance, is the important thing

Two exhibits from recent studies are of interest here Whitney found

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Robert I Davis The Teaching Problems of 1075 Public School Teachers *Journal of Experimental Education* Vol 9 (September 1940) pp 41 60

In Service Growth of School Personnel Twenty first Yearbook of the Department of Elementary School Principals (Washington D C National Education Association 1942) Contains a list of activities which are desirable in programs of improvement in service

Cooperation Principles and Practices Eleventh Yearbook of the Department of Supervisors and Directors of Instruction (Washington D C, National Education Association 1940)

W S Ilsbree Trends in the Improvement of Teachers in Service *New York State Education* Vol 29 pp 8 9 Shows trends away from courses and lectures toward conferences and workshops

James H Hodges and Frank R Pauly *Problems of Administration and Supervision in Modern Elementary Schools* (Oklahoma City Okla Harlow Publishing Co 1941)

Edgar G Johnson An Adventure in Cooperative Thinking *Educational Administration and Supervision* Vol 23 (May 1937) pp 343 353

F L Whitney, Trends in Methods of Teacher Improvement *American School Board Journal,* Vol 93 (December 1936) pp 18 19

W E Moser, *Teacher Participation in School Administration Its Nature Extent, and Degree of Advocacy* Doctoral Dissertation Leland Stanford University 1938

C A Weber Techniques of In Service Education Applied in North Central Schools ' *North Central Association Quarterly* Vol 17 (October 1942) pp 195 198

C A Weber and S L Garfield, Teachers Reactions to Certain Aspects of In Service Education *Educational Administration and Supervision,* Vol 28 (September 1942), pp 463 468

Koopman, Miel and Misner *op cit* A general text which contains reference to many recent studies

that superintendents in a given area tended to rate certain supervisory techniques as follows [14]

RANK ORDER OF SUPERINTENDENTS' JUDGMENTS ON EFFECTIVE METHODS USED TO PROMOTE THE GROWTH OF TEACHERS IN SERVICE

Small Systems	*Large Systems*
1 General teachers meetings at regular intervals	1 Measuring the results of teaching with remedial suggestions
2 Classroom visitation by superior officer	2 Reading professional literature
3 Personal conferences	3 Personal conferences
4 Group conferences on specific problems	4 Group conferences on specific problems
5 Measuring the results of teaching with remedial suggestions	5 Supervision by general or special supervisor
6 Reading professional literature	6 Visiting other teachers
7 Visiting other teachers	7 Classroom visitation by superior officer
8 Participation in curriculum making	8 Participation in curriculum making
9 Establishing happy community relationships	9 Experimental study of teaching problems
10 Teacher participation in administration	10 General teachers meetings at regular intervals

Necessary differences between small and large systems are seen in the relative ratings accorded "general teachers meetings at regular intervals and classroom visitation "Measuring the results of teaching with remedial suggestions' rated higher in large systems may indicate undue emphasis upon standard testing which in small systems could conceivably be minimized Group conferences rank well up for both lists but may or may not be participatory Participation in curriculum making and experimental study rank low in both indicating that the particular superintendents here reporting are not quite abreast of modern developments, or that the two procedures are not well carried out

A study by Weber and Garfield, "Teachers Reactions to Certain Aspects of In Service Education,' supplies us with an interesting teacher reaction to the same problem [15]

THE MOST PROMISING TECHNIQUES LISTED BY TEACHERS FOR CERTAIN PHASES OF IN SERVICE EDUCATION

	Per Cent	*Rank*
A Democratic Participation		
1 Free and open discussion of mutual problems in regular staff meeting	36	1
2 Committee work by teachers to plan faculty meetings	26	2
3 Committee work by teachers to study problems selected by the staff	21	3

[14] Whitney *op cit* pp 18 19
[15] Weber and Garfield *op cit* pp 163 168

B	**Teacher Health**		
1	Adequate sick leave	35	1
2	Letting teachers have full knowledge of what is going on by letting them have a part in planning	30	2
3	Distributing extra-curricular load equitably	28	3
4	Having a planned recreational program for teachers	22	4
C	**The Solving of Problems**		
1	Making a good professional library available to the staff at school expense	39	1
2	Having committees report upon magazine articles and books	29-	2
3	Making a survey of pupil problems and needs	21	3

Number—141

The teachers responding here are wholly in accord with modern theory and practice for points A and C Their emphasis upon "Teacher Health" and the sub-points thereunder is most revealing Studies of health and of morale have for some time been stressing these points A definite challenge and guide is here given to leadership

Illustrative listings of supervisory activities[18] The most extensive of the *early* studies was Barr's analysis of the duties of special supervisors in Detroit Five thousand weekly reports from supervisors were used as the basis for the listing The following table presents but a summary of main headings derived from a very extensive list of detailed duties

A Summary Statement of the Activities of Special Supervisors in Detroit Public Schools

1 Selection of Textbooks
   - *a* Select textbooks
   - *b* Determine standard of distribution
   - *c* Prepare materials pertaining to the use of textbooks
   - *d* Appraise textbooks in use

2 Study of Supplies Equipment and Buildings
   - *a* Prepare descriptive list of instructional supplies
   - *b* Assist in the preparation of standards of distribution
   - *c* Prepare directions for the use of supplies
   - *d* Prepare specifications for classroom equipment
   - *e* Assist in building plans
   - *f* Study instructional effectiveness of supplies equipment and buildings

3 Assistance in the Selection Appointment, Assignment, and Transfer of Teachers
   - *a* Recommend teachers for appointment
   - *b* Rate teachers
   - *c* Advise with administrative officials upon the transfer and assignment of teachers
   - *d* Assist in personnel problems

[18] The lengthy listings included here are necessary to give content to the general definition to indicate the detailed sub processes through which supervision operates Students and beginning supervisors have found these materials of definite value Effort has been made however throughout the volume to keep voluminous listings to a minimum

4 Community Activities (Work with Outside Agencies)
   a Answer requests for assistance from the community
   b Attend numerous miscellaneous community meetings
   c Address community groups
   d Participate in the civic social, and educational affairs of the community
5 Field Work (Inspection)
   a Visit schools
   b Answer calls for assistance
6 Training Activities
   a Hold teachers meetings
   b Plan for demonstration teaching
   c Direct observation
   d Provide for directed teaching
   e Organize institutes
   f Prepare bibliographies
   g Hold conferences
   h Enlist the interest of teachers in correspondence courses, extension classes late afternoon evening and Saturday classes
   i Arrange for and advertise lectures and concerts
   j Develop educational exhibits
   k Provide for social contacts
   l Promote professional organizations of teachers principals and supervisors
7 Surveys Reports Records and Schedules
   a Conduct surveys of instructional conditions in the several fields of learning
   b Render reports upon general instructional conditions within the system
   c Make special reports to the superintendent and to the board of education
   d Keep miscellaneous temporary records
8 Preparation of Instructional Materials
   a Prepare notices and announcements
   b Prepare discussions of special instructional problems
   c Prepare courses of study
   d Prepare descriptive materials concerning various city wide projects
9 Research
   a Construct and standardize tests
   b Study instructional problems experimentally
10 Professional Activities
   a Attend educational meetings
   b Serve on educational committees
   c Write educational articles
   d Address professional groups
11 Educational Publicity
   a Prepare news articles
   b Prepare educational exhibits
   c Address community groups
12 Survey of General Educational Progress
   a Report upon educational progress made in other cities
   b Review recent educational literature
   c Report upon educational progress made in centers of research

13 General Administration
   a Sell instructional materials to administrative officials
   b Carry through delegated administrative projects
   c Organize instructional projects

The minute specific activities run to impossible numbers and cannot be reproduced here The following examples give an idea of the sequence of day-to-day activities actually engaged in by a group of typical supervisors [17]

Typical Examples of the Specific Training Activities of Supervisors

1 Assisted new teachers in the office by explanation of courses of study and technic of the work
2 Met the teachers of millinery in high schools for purpose of starting plans for reorganizing C R S in intermediate schools
3 Selected thirty key teachers and planned a first meeting for training such teachers to demonstrate a new spelling procedure to principals
4 Scheduled meetings for demonstration lessons in spelling
5 Conducted a series of demonstration lessons for district principals to train them to judge the quality of instruction in spelling
6 Attended a reading conference with teachers from Teachers College in order to observe two demonstrations in reading
7 Selected for the visiting list of the Department of Transfers and Assignments certain teachers who are doing exceptional work
8 Planned and arranged for meetings to train teachers new to the system in the use of the film *Democracy in Education* and the film *Handwriting*
9 Give demonstration lesson at the Brady School A discussion was held before and after this lesson by the teachers of writing and the principal of the building
10 Gave thirty three demonstrations for teachers new to the system
11 Held weekly meetings with teachers new to the music department, for the purpose of instruction
12 Gave a talk on book repair to a group of librarians
13 Give a demonstration of field ball
14 Assisted a teacher of literature in the Field School and prepared material to aid her in training her class in scoring compositions
15 In the office assisted forty teachers concerning work, schedules, and problems of various kinds
16 Held a first meeting of Teachers College evening class
17 Taught a lesson in the fourth grade at the A L Holmes School (upon request of teacher)
18 Assisted teachers who came to the office for instruction in making Christmas gifts
19 Held two demonstrations for thirty five teachers selected to use the new practice test cabinet in arithmetic designed for 3A and 4B classes
20 Worked with the seventh grade teachers of the Miller Intermediate School on the use of supplementary arithmetic material
21 Gave assistance to teachers and made plans for remedial work in Greusel School
22 Gave a demonstration of the use of slides in classroom teaching in Thirkell School
24 Trained teachers in use of the DeVry machines in the auditorium

[17] Barr *op cit* pp 32 34

24 Held a conference with the teachers of mathematics of Joyce Intermediate to explain and outline the intermediate mathematics program
25 Held a meeting at the Detroit Institute of Arts for the purpose of giving suggestions for Hallowe'en Thanksgiving and Christmas work
26 *Met with a committee of teachers for intermediate schools for the purpose of studying the possibilities of art in school plays and festivals*
27 *By request of the auditorium teachers collected material and made sketches to illustrate the different periods in fashion and costumes of the different nations*
28 Planned a meeting of teachers who are to use *The Youth's Companion* and *The American Boy* for free reading
29 Laid out a program of health instruction for twenty-five fourth, fifth and sixth grade teachers in the Russell Capron and Barstow Schools
30 Distributed and explained at a meeting of sixth, seventh and eighth grade teachers bulletins describing intra-mural school tournaments
31 Prepared materials and conducted a meeting of women directors and basket ball coaches in intermediate and high schools
32 Explained field ball to group of teachers
33 Attended a meeting of the English teachers at Northwestern High School to answer questions and talk over the writing experiment conducted there this semester
34 Held a meeting at the Stephens School for a group of forty teachers who had asked for special assistance in writing. There will be a series of three meetings
35 Met the faculty at Northwestern High School and presented the aims and objectives of the social science curriculum
36 Met the teachers and principals of three districts to present the basic principles of the social science curriculum
37 Gave a talk on visual education at a meeting of auditorium teachers
38 Presented to the teachers of English of the Burbour School materials to be used for remedial work in reading
39 Held teachers meeting at Central High for high school teachers of domestic science reported on work presented at the Chicago meeting home and school problems especially the relation to the health program
40 Met with the teachers of mathematics and general science of the Hutchins Intermediate School and assisted the principal in the final organization of these departments

The *recent* studies include practically all the techniques listed in earlier investigations but with striking difference in emphasis and in method of use. Differences in frequency and value attributed are also to be noted. The best listing of modern techniques probably is that of Weber.[18] The influence of modern democratic cooperative philosophy upon the actual operations of supervision is shown with unmistakable clarity. The following abbreviated sampling indicates the nature of the extensive lists which cover several pages in the original study.

PROMISING TECHNIQUES FOR IMPROVING INSTRUCTION

1 Visiting teachers in one's own school according to a plan devised by teachers themselves
2 Visiting teachers in other schools according to plans devised by the staff
3 Holding departmental meetings to study curriculum development

[18] Weber *op. cit.* pp. 195-198

4 Experimenting with new classroom procedures according to plans devised by the staff
5 Making surveys of pupil problems, interests, and needs
6 Surveying graduates for facts needed in curriculum development
7 Holding departmental seminars open to all teachers to discuss departmental problems
9 Having pupils and parents as well as teachers serve on committees concerned with pupil activities and problems
11 Electing committees to evaluate practices experiments, and so forth
16 Organizing teachers into committees to carry out a program of cooperative research in summer school
22 Making careful study of maladjusted pupils
27 Organizing the staff to study the socio-economic background of every pupil
29 Organizing the entire staff into committees to study curriculum development
(A total of 38 items)

PROMISING TECHNIQUES FOR IMPROVING STAFF RELATIONS

1 Having teachers preside at general meetings of the staff
4 Electing committees to plan staff meetings
19 Giving teachers a definite part in the selection of new staff members
20 Having teachers plan and execute procedures for the orientation of new teachers
21 Electing rather than having the principal appoint committees
25 Using committee reports for the bases of plans of action by the staff
29 Having teachers make a list of their problems for use by the staff in planning faculty meetings
33 Having teachers cooperatively develop a statement of their own philosophy
36 Holding joint meetings of boards of education and faculty
40 Having teachers devise a plan for basing salary increases on evidence of growth
43 Giving salary increases or bonuses for extensive activity in study of local problems curriculum revision guidance and so forth
45 Providing a faculty browsing room and lounge
(A total of 45 items)

PROMISING TECHNIQUES FOR IMPROVING COMMUNITY RELATIONS

4 Issuing press bulletins mimeographed bulletins and so forth to inform the public of staff meetings
5 Having pupils parents and the public participate in the discussion in faculty meetings
9 Having pupils parents and teachers serve on committees concerned with pupil activities and problems
12 Organizing a community coordinating council on which teachers elected by the staff serve
15 Having teachers make a survey of community resources for curriculum development
16 Electing committees of teachers to work with parents board members, and pupils in evaluation of the school
19 Releasing teachers from school duties to take part in programs of local organizations
(A total of 19 items)

An interesting fact emerges when we try to redistribute the items in Weber's study under the four headings in the definition of supervision advanced in this chapter on page 12. The bulk of the items falls under headings 2 and 3, 'Studying the Teaching Learning Situation,' and 'Improving the Teaching Learning Situation.' This is to be expected in part since the study admittedly deals with "in-service education." The fact that "in-service education" as here reported has fewer than a half dozen items dealing with divisions 1 and 4 of the new definition "Evaluating the Educational Product," and "Evaluating the Objectives, Methods, and Outcomes of Supervision," reveals that in-service education is still somewhat narrowly concerned with improving the teacher and her techniques. The number of items dealing with studying the situation prior to or as a part of improvement is gratifying. The democratic emphasis throughout is of course noticeable and represents real progress. Evaluation nevertheless of the product of the processes, of the objectives, and of the outcomes of education and of supervision needs far greater emphasis than it seems to be getting.

The same study includes a revealing list of activities judged by those participating to be least helpful.[10]

TECHNIQUES CONSIDERED LEAST VALUABLE

1. Having the principal preside over teachers' meetings
2. Having the principal plan faculty meetings
3. Holding staff meetings without adequate planning
4. Holding meetings after school when teachers are tired
5. Discussing routine matters
6. Holding faculty meetings at irregular intervals
7. Holding reading circle meetings
8. Demonstration teaching
9. Having principal do most of the talking
10. Domination by the principal in discussions
11. Visiting of classes by principal or supervisor
12. Holding individual conferences by invitation of principal
13. Basing salary increases on summer study without concern for other evidence of growth
14. Basing salary schedules on earning advanced degrees without other evidence of growth
15. Basing salary schedules on years of service without regard to other evidence of growth
16. Giving teachers leaves without pay
17. Deducting from salaries for short absences due to illness
18. Appointing committees when electing could be the procedure to employ
19. Issuing circulars and bulletins to teachers
20. Creating curriculum committees by appointing only department heads to serve
21. Issuing bibliographies to teachers
22. Having the principal review current literature
23. Having the principal issue orders to teachers when teachers could work out their own procedures

[10] *Ibid.*, p. 198

24 Principal becomes overly concerned with technical rules and regulations regarding teachers
25 Making faculty meetings resemble college classroom situations

The ranking in recent studies for demonstration teaching, while still high, is not nearly so high as in practically all early studies This is significant First, in earlier days the type of fragmentary daily lesson then dominant could be demonstrated with reasonable ease the short lesson was an entity the pupil-learning experiences few and formal, the results were limited and the teaching techniques limited The better type of modern teaching cannot be demonstrated in any quick or easy manner the working period in modern experience units is lengthy learning experiences are varied and diverse at any one time, results are cumulative and teaching techniques, many and varied Some teaching techniques vital to what is happening in a given working period may have taken place several days earlier

A second clue is found in the list of "promising techniques for improving instruction" High rank is given there to planned intervisitation, teacher exchange experiment and try-out with procedures cooperatively devised by the staff cooperative evaluation of techniques observed or suggested Demonstration has value but is being superseded by techniques which reflect the better training of teachers and the more democratic principles of in service training

SECTION 4

THE RELATION BETWEEN ADMINISTRATION AND SUPERVISION

Can or should supervision be separated from administration? Early discussions devoted much space to this argument but modern knowledge and insight have made this a purely academic question The two can be separated only arbitrarily for the sake of analysis A separation in function is impossible

The history of the relationship is, however, of importance Arbitrary separations in function are still present in practice The remains of still earlier procedures are to be found in given school systems, side by side with efforts to develop more functional organizations Administrative procedure and our thinking about organization are both cluttered up by these vestigial remains The newer, more functional schemes which are emerging are of necessity incomplete, and are often misunderstood The brief summary to follow may aid in clarifying relationships The actual organizational schemes will be elaborated in Chapter III

The relation between administration and supervision Administration is generally and commonly thought of as concerned with providing material facilities and with the operation of the school system The present legal basis of education probably accounts for this conception Financing the system, securing an adequate staff for the business and instructional

activities, accounting for costs, determining curriculums, securing books and materials, preparing the budget, establishing standards of progress, supplying testing services maintaining buildings and grounds, providing many special services—all these are duties commonly associated with administration

Supervision has had a number of meanings The earliest use in the simple school systems of colonial days was, as explained earlier, the general administrative oversight of the schools by legally appointed laymen Very early also supervision was used to denote the relationship between instructors and the students who were being trained for teaching Little discrimination was made in early days between administration and supervision

Superintendents and school boards sincerely interested in improving the effectiveness of education eventually embarked, as indicated earlier in this chapter, upon programs first of coercion and later of guidance and training for the improvement of teachers The older concept of supervision, that is, that of teachers training pupils was reinstated with supervisors and principals as teachers, with classroom teachers as the students

The problems and relations of administration and supervision were complicated considerably when the curriculum began to be extended about 1870 The curriculum previously had consisted largely of reading, writing and arithmetic A number of new subjects appeared manual training home economics, music drawing physical education history, and literature This extension of the curriculum is still going on The superintendent the principal, and the regular teachers were ordinarily quite unprepared to give instruction in these new subjects Specialists had to be employed to teach them The new subjects thus came to be known as special subjects The special teacher going from building to building to give instruction to the children became a traveling teacher working out from and more closely related to the central office than to the local school units

Important factors arose and united to bring about fundamental changes in the duties of these traveling specialists *First*, systems grew in size so that one elementary building could use whole time teachers of the special subjects, particularly music and art The traveling specialists thus became local teachers responsible to the building principal *Second*, as levels of teacher training improved, the so-called "regular teachers first accepted guidance from the so-called special' teachers and traveling teachers, eventually taking over instruction in the new subjects *Third*, it was increasingly recognized that the new subjects were as much a part of desirable education as the older offerings Integration would be better achieved if the distinction between "special' subjects and the "regular" curriculum were eliminated All teachers were increasingly required to teach any subject important enough to appear in the school

The new specialists had thus both administrative and supervisory duties Supervisors from the central office, special teachers, principals,

and others were increasingly engaged in administering and supervising the same things Relationships between officers increased in complexity

The foregoing remarks apply chiefly to the elementary school Supervision with its complexities appeared much later in the secondary schools

The central supervision of "special" subjects had meantime been extended to many of the academic subjects Supervision by department heads in secondary schools was developing, even if feebly This multiplied the number of persons involved and eventually led to still further changes in relationships between generalists and specialists The sum total so far was to emphasize the meaning of supervision as the professional training and assisting of teachers and to further differentiate it from administration All this development complicated the relationship between administration and supervision since meanings and practice could not be easily aligned

A fourth factor turned out to be of great importance, the place and function of the elementary and secondary principals changed fundamentally Increasingly critical analyses of the duties of school officers indicated that the building principal was one of the most strategically placed individuals The administrative duties commonly associated with the office came to be supplemented by important activities of leadership and professional supervision This led to minimizing the work of the special supervisor in many places, to clash and friction in others, and as we shall see later, to eventual cooperative relationships

A fifth factor which emerged only recently has played a major part in breaking down the arbitrary distinctions between administration and supervision A large group of new staff members has been added to state and city school systems, not as in 1870 and thereafter to develop an increasing number of separate subjects but to develop an overall picture, to coordinate, to bring integration and order into a compartmentalized educational scheme Curriculum directors, research specialists, diagnosticians, remedial workers, guidance officers, deal not with separate subjects or materials but with the whole child, the whole curriculum, the whole educational program The old distinctions arbitrarily defined cannot survive within a modern functional program Organization around the total on going learning process instead of around compartments in the course of study necessitates cooperative interaction by all concerned with learning

Administrative and supervisory duties overlap Even without the historical background mere inspection of the typical division between administrative and supervisory duties would indicate that the division can be only an arbitrary one for purposes of discussion Intimate interrelationship and overlap are inherent and inevitable

The provision of a building and equipment, for instance, is a typical administrative duty The planning and construction of this building will not be intelligently done, however, unless supervisors and teachers participate Competent teachers know intimately and at first hand the

desirable space requirements necessary for little children, the types of equipment and materials best suited to various age levels Specialists in reading, in testing, in health education, or what not all have technical information of value School buildings have in fact often been planned and built by administrators and architects without reference to teachers and other specialists The result too often is a plant and equipment not well suited, even detrimental to education The most typical administrative duty providing housing, cannot be properly carried on without active interrelationship with supervisory officers A typical supervisory duty carrying on programs of study for improvement, cannot be carried on without knowledge of the policy the financial ability, sometimes of the political alignment of the administration Administration is legally empowered to establish a curriculum and provide texts Supervisors and teachers, however, have much important information concerning the maturation of learners which will affect the curriculum and the texts Supervisors and teachers are to provide the best possible instructional program This involves purchase of books, pictures, crayons, paint, paper materials, tools, and so forth Supervisory activity here cannot proceed without cooperation from the administration which has knowledge of money available Illustrations could be multiplied indefinitely Suffice it to say that mere inspection will show that duties overlap and interrelate of necessity No hard and fast distinction can be made

The fact of overlap and sharing of duties is further confirmed by the objective analyses of actual practice The early research studies in the field include a number of excellent time and frequency studies of the activities of all types of administrative and supervisory officers superintendents, general and special supervisors, elementary and special supervisors department heads

The lists of duties performed were attacked critically by several analysts in the effort to determine the duties which various officers *should* perform as distinguished from those they now performed The effort began here to eliminate unnecessary and wasteful overlap which results only in friction, confusion and waste Attention here began to shift toward the determination of the necessary and valuable cooperative interrelationships which are effective in furthering the work of education Current studies as we shall see below do not discuss mere overlap but attempt to determine the necessarily shared responsibilities

Summary and illustration from the early studies The degree to which typical supervisory duties were performed by typical administrative officers may be seen in the table on page 32 which is taken from an early study based on the activities of 473 school officers [20]

[20] Other early studies of note include

W P Dyer *Activities of the Elementary School Principal for the Improvement of Instruction* (New York, Bureau of Publications Teachers College Columbia University, 1927)

Current studies strike a different note Analyses of duties performed and by whom, with overlaps or omissions counted, are still necessary New duties appear, a few are eliminated, concepts of relationship between officers change Discussions today, however, introduce a new emphasis, namely, the effort not merely to count overlaps but to determine how shared responsibilities can be carried on for the good of the system Articles [21] increasingly stress "cooperative democratic administration (or supervision)" Traditional organizations are questioned, new methods of organizing are appearing everywhere The trend is toward a cooperative formulation of working relationships on the spot, on the basis of the needs of the situation and the personnel available This leads directly into the important administrative problem of organization The third chapter will be devoted to this We are at the moment concerned with a few facts only administration and supervision have certain typical duties, practice in these fields is characterized by large overlap in performance of duties, sharp distinctions need not be made, there is need for a cooperatively determined scheme for sharing responsibilities

Guidance derived from the analysis of administrative and supervisory practices The following facts derived from the studies of activity are of value in clarifying thinking

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C L Hughes, The Functions of the School Superintendent in Theory and Practice" *American School Board Journal,* Vol 21 (March 1921) pp 500 514

D H Eikenberry Status of the High School Principal, *United States Bureau of Education Bulletin* No 24 (Washington, D C 1925)

Melby, *op cit*

Brink, *op cit*

These early studies up to 1928 are summarized rather extensively in *The Organization of Supervision* by Ayer and Barr Excellent samplings are included in *The Superintendent Surveys Supervision Eighth Yearbook* of the Department of Superintendence Chs 3, 4

[21] C I Hazzard Cooperative Democratic School Administration *American School Board Journal,* Vol 103 (September 1941) p 545

Personnel Responsible for Supervision of Instruction Education Research Service Circular No 11 (Washington D C American Association of School Administrators 1940)

G I Potter 'Democracy in Supervision *California Journal of Elementary Education,* Vol 9 (May, 1941), pp 201 207

J A Sexson, 'Is Special Supervision on the Way Out? *Proceedings* of the National Education Association, 1941 pp 607 611

H Spears Can the Line and Staff Principle Unify Instructional Leadership' *Educational Method,* Vol 20 (April 1941) pp 343 349 Found also in the *Bulletin of the Department of Secondary School Principals,* Vol 25 (Washington D C, National Education Association April, 1941), pp 27 31

J T Wahlquist, Conflicting Views of School Administration and Supervision *Educational Administration and Supervision,* Vol 27 (February 1941), pp 81 98

Bimson, *op cit* Contains excellent survey of literature

Moser, *op cit* Analyzes literature and reports practice in California schools

S A Courtis, *Democratic Participation in Administration, Eighth Yearbook* of the Department of Elementary School Principals (Lansing, Mich Michigan Education Association, 1935)

Johnson, *op cit*, pp 343 353

SUPERVISORY DUTIES OF PRIMARY AND AVERAGE IMPORTANCE WHICH WERE PERFORMED BY OVER 50 PER CENT OF SUPERINTENDENTS, HIGH SCHOOL PRINCIPALS, OR ELEMENTARY SCHOOL PRINCIPALS *

Types and Titles of Duties Performed	Value	Percentage of Administrators Performing		
		Supt	H S Prin	El S Prin
I General Control				
1 Advise teachers as to policies	1	94	88	73
II Executive Management				
1 Adjust complaints of parents	1	91	85	83
2 Investigate complaints of parents	1	90	85	85
3 Facilitate inspection by county and state officers	1	78	68	39
4 Keep school day office hours	1	77	60	61
5 Examine sample of school work sent to office	2	80	76	66
6 Introduce visitor to teachers	2	70	79	67
7 Notify parents of child's bad habits	2	68	70	76
8 Supervise work of P T A	2	10	19	51
III Personal Management of Teachers				
1 Assign teachers	1	91	82	59
2 Notify teachers of school opening	1	89	58	15
3 Suggest professional books to teachers	1	88	85	71
4 Encourage worried teacher	1	87	88	80
5 Ask advice from teachers	1	87	87	81
6 Promote cordial relations with teachers	1	87	85	65
7 Promote cooperation among teachers	1	85	87	71
8 Suggest current magazine articles for reading	1	81	80	71
9 Initiate new teacher	1	80	85	81
10 Confer with teacher on personal welfare	1	80	80	70
11 Protect teachers from agent	1	78	71	61
12 Encourage teachers to experiment	1	71	61	62
13 Rate teachers	1	59	46	16
14 Discipline teacher	1	57	42	29
15 Investigate criticism of teacher	2	89	80	68
16 Encourage teachers to ask for advice	2	85	81	72
17 Assist teacher secure boarding place	2	83	72	41
18 Entertain teachers	2	71	63	57
19 Arrange for attendance at institute	2	71	52	41
20 Advise teacher on social and moral conduct	2	70	48	29
21 Provide professional magazines	2	68	60	44
22 Administer teacher's request	2	67	61	55
23 Enroll teachers in teacher organization	2	65	53	41
24 Check school arrival of teachers	2	62	56	56
25 Recommend professional courses to teachers	2	61	48	19
26 Check extra work done by teachers	2	55	55	16
27 Advise teachers on teamwork qualities	2	55	45	41
28 Help teachers improve community standing	2	55	55	16
29 Meet teacher at train upon arrival	2	52	53	41
IV Personnel Management of Pupils				
1 Interview pupils referred by teachers	1	89	95	83
2 Examine teachers marks	1	81	80	76
3 Instruct teachers in disciplinary procedure	1	81	95	72
4 Establish uniform marking system	1	68	57	37
5 Adjust difference between teacher and pupil	1	69	88	68

* F C Ayer, The Duties of Public School Administrators, *American School Board Journal* Vol 78 (February 1929 and continuing for several months), pp 39ff

SUPERVISORY DUTIES OF PRIMARY AND AVERAGE IMPORTANCE—(*Continued*)

	Types and Titles of Duties Performed	*Value*	*Percentage of Administrators Performing*		
			Supt	H S Prin	El S Prin
	6 Investigate disciplinary cases	2	86	89	85
	7 Adjust pupils grievances and complaints	2	86	91	89
	8 Instruct teacher in use of register	2	77	51	83
	9 Decide disciplinary penalties	2	66	73	71
V	The Curriculum				
	1 Instruct teachers in registration duties	1	85	77	65
	2 Explain curriculum to principals and teachers	1	71	57	41
	3 Construct list of general educational objectives	1	59	53	19
	4 Distribute teachers loads	1	78	80	59
	5 Check teachers classroom schedules	2	81	15	69
	6 Help teacher make out daily program	2	60	11	70
	7 Provide teachers simple daily programs	2	51	53	49
VI	Supervision of Testing and Instruction				
	1 Hold conferences with individual teacher	1	92	85	85
	2 Hold group conference	1	92	86	85
	3 Observe teachers classroom procedure	1	91	87	81
	4 Discuss aims of teaching with teachers	1	89	84	59
	5 Conduct teachers meetings	1	86	87	85
	6 Criticize teachers classroom procedure	1	82	77	67
	7 Plan outline of teacher meeting topics	1	73	70	59
	8 Show teachers how to achieve aims	1	68	68	67
	9 Explain purpose of testing program	1	66	51	51
	10 Help teachers improve written examinations	1	66	63	44
	11 Organize testing program	1	65	46	51
	12 Train teachers to score and tabulate tests	1	62	49	49
	13 Train teachers to give tests	1	56	42	44
	14 Make statistical analysis of test results	1	55	42	44
	15 Prepare plan of supervision	1	55	63	49
	16 Help teachers provide for individual differences	2	77	71	67
	17 Help teachers improve study habits of pupils	2	60	58	66
	18 Suggest desirable changes in ways of assigning lessons	2	69	50	61
	19 Assist teachers find materials	2	68	63	61
	20 Look over lesson plans of teachers	2	67	45	51
	21 Show teachers how to guide pupils into purposeful activities	2	64	63	59
	22 Suggest improved special devices	2	57	45	19
	23 Supervise giving of test	2	56	57	51
	24 Suggest desirable changes as to assigned home work	2	55	43	37
	25 Keep record of visits	2	54	51	51
	26 Suggest how to conduct various types of lessons (e g drill)	2	54	41	56
	27 Help teachers plan projects	2	53	39	54
	28 Administer group test	2	51	63	60
	29 Compute IQ's or similar relations	2	47	51	46
VII	Special Services				
	1 Supervise work of librarian	2	59	57	51
	Average		72	65	61

1 Practically all supervisory duties are performed at one time or another by administrative officers Many administrative duties are performed from time to time by supervisory officers
2 A number of duties are difficult to classify as one or the other despite restricted definitions of administration and supervision
3 Certain duties stand out as practically impossible to classify strictly under one or the other curriculum construction securing texts and other instructional materials selecting the teaching staff, furthering the growth and welfare of the staff testing or evaluating outcomes child accounting
4 Great but not complete agreement exists among competent judges as to duties which are deemed of major and of minor importance
5 Duties judged to be of major importance were in the main performed by a majority of administrative and supervisory officers
6 A considerable number of duties judged to be of minor importance were being performed by a majority of school officers
7 The fact that a duty is widely performed is not a safe basis for judging its importance
8 Great differences exist between administrators not alone in their sharing of supervisory duties but in their control of supervisory officers and duties
9 Great need is shown for devising principles and mechanisms to provide for cooperative shared responsibilities and activities

Rorer -- in his remarkable analysis of principles governing supervision believes that the differentiation between supervision and administration may be found in the function of leadership The administrator will specialize in leadership, in taking the initiative in movements for the improvement of teaching and learning The movements initiated, however, may be in response to suggestions from any member of the supervisory or teaching staff Leadership then is not exclusively an administrative function but a large responsibility for it does lie with the administration The principle that leadership instead of authority be characteristic of administration was voiced very early (*circa* 1930) by Courtis in various publications It was strongly stressed in the first edition of this book and developed in some detail in the *Eleventh Yearbook* of the Department of Supervisors and Directors of Instruction [23]

Criticisms of supervision Supervision has always had to meet criticism from a proportion of the teaching body Analysis of these criticisms is revealing Teacher criticisms usually voiced orally or in articles written by individual teachers, vary from carefully worded sincere discussions of poor supervision to wild, illogical, and incoherent denunciations of any and all supervision The majority of casually expressed criticisms reflect narrow temperamental views This is a matter for genuine regret since real harm is done The general attitude of thoughtless, antagonistic criti

[22] John A Rorer, *Principles of Democratic Supervision* (New York Bureau of Publications Teachers College Columbia University 1942) pp 30 32
[23] *Cooperation Principles and Practices, op cit*, pp 48 50, 110 113

cism is kept alive Young teachers are given undesirable prejudices The opinions and attitudes of the persons themselves who express unthinking temperamental criticisms are unfavorably affected The ever increasing levels of professional insight and spirit, plus increasingly cooperative supervision will eliminate criticism on the level of "rest room gossip"

A number of valid and reliable studies have been made under controlled conditions in which the sober judgments of many teachers are recorded These show conclusively that although teachers object, and rightly so, to formal, uninspired, and dogmatic supervision and to supervisors lacking personality and training, they are enthusiastically in favor of good supervision Favorable judgments outnumbered the unfavorable by approximately six to one The evidence is easily available in both primary and secondary sources and is voluminous It is not restated here because of easy availability and because advanced students may be expected to be familiar with such routine background materials [24]

The chief criticisms derived from the serious judgments of fair minded teachers and from more objective analyses may be summarized thus

1 Supervision costs too much
2 Supervision is undemocratic It destroys the individuality of the teacher represses his initiative inhibits him emotionally, and otherwise interferes with his self reliance and self expression
3 Supervision lacks basic principles that are objective valid and reliable it lacks adequate criteria for self evaluation
4 Supervision lacks a staff of adequate training and personality
5 Supervision lacks a planned program

Brief comment is needed The first criticism cost cannot be discussed intelligently in general This is a question of financial ability and policy in each local administration There is overwhelming evidence of the value and results of supervision Recent surveys show that with the sole exception of localities where political interference is severe, the more money spent the better the schools Money spent on supervision will unquestionably secure desirable results If money is simply not available, however then any supervision costs too much

Supervision is not inherently and automatically undemocratic That it

[24] This list is not exhaustive and samples both old and current studies

H W Nutt The Attitudes of Teachers Toward Supervision *Educational Research Bulletin* Vol 3 (Columbus Ohio Ohio State University February 6 1924) pp 59 64 Probably the first such study Showed teachers voting heavily in favor of good supervision and keenly aware of faults of poor supervision

M Olga Saunders What the Teachers Want of the Principal in His Capacity of School Supervisor," *School Review*, Vol 33 (October 1925) pp 610 615 An early study representative of many early and current inquiries

J R Shannon Teachers Attitudes Toward Supervision *Educational Method*, Vol 16 (October 1936) pp 9 14

Current Problems of Supervisors, op cit, Chs 5, 9 An extensive analysis of many phases

W E Armstrong What Teachers Prefer in Supervision *Educational Method* Vol 15 (February, 1936), pp 270 272

is undemocratic in given school systems is not a criticism of supervision but of local leadership Democratic supervision can be observed in many places and is on the increase

The lack of basic principles is partly true but not fatal and is under constant remedy Teaching, medicine, engineering, and other activities were all in the same situation in the beginning and are still partly there Criteria for self evaluation are available and a number of excellent investigations have been made This criticism usually stems from a lack of information

The lack of an adequately trained staff of desirable personality cannot be a criticism of supervision but is again a criticism of local situations A challenge to growth and development exists

Modern supervision in competent hands does not lack a planned program On-going programs of professional activities are constantly being derived cooperatively from the needs of the given situation and democratically carried out through participation of the whole staff

Factual or logical arguments indicating that supervision is an unnecessary and detrimental addition to the educational structure do not exist Justification of supervision must rest in the last analysis upon experimentally derived data This will be discussed in Chapters XVI and XVII

The need for supervision Discussion has proceeded so far upon the assumption that supervision is a necessary function or service within the educational organization Considerable opposition to supervision has been manifested from time to time, but it usually turns out to be a selfish demand for 'economy' in school expenditures, or a legitimate criticism of incompetent supervisors The latter is no argument against supervision but a challenge to growth, or in some cases, to a change in personnel This is particularly true of modern supervision which is on the service basis and uses cooperative methods Opposition to and denials of the value of supervision do not today emanate from any influential source nor from any person of standing in education Isolated individuals who oppose supervision as such are usually honest, naive individuals who do not know the facts educators or laymen who do not recognize the technical or professional nature of education and of supervision A few dishonest individuals oppose supervision for selfish reasons

Supervision on the functional service basis is a necessary, integral part of any general educational program and of any specific school system because

1 Supervision as expert service on the consultancy basis is an accepted principle in all difficult and complex human undertakings in any line of endeavor

2 Education, particularly, is complex and intricate, and furthermore is carried on in minute divisions, classrooms scattered throughout a community and over the nation The great extension of educational opportunity particularly on the secondary level increases the demands for

technical assistance Brief teacher tenure also complicates the situation Supervision in the sense of leadership will contribute to unity (not uniformity) of purpose and coordination of effort

3 The academic and professional training of all levels of professional workers, despite excellent progress is still absurdly low Supervision will contribute to the growth of all

4 The teaching load, particularly in high school is so diverse so heavy and so unrelated to teachers previous preparation, that technical assistance is necessary

5 Education is developing so rapidly that educational workers in general could not possibly keep abreast of current developments Supervisory services will bring to all analyses and discussions of research findings new departures creative suggestions

6 Leadership and creative contribution may be found anywhere it is increasingly realized Supervisory leadership aids in discovering leadership and creative ability and in arranging opportunities for its expression

Note on Discussion Questions Exercises, Reports and Readings

A competent course in supervision (or in anything else) cannot ever be taught from a book This volume and any volume will be unsuccessful unless supplemented in certain definite ways

1 *Discussion questions* are provided some of which will be useful with beginners others with more experienced groups

2 *Exercises and reports* provide things to do in contrast to things to discuss as provided by the first group of questions

In addition the following items are desirable if not in fact necessary

1 Cooperative relations with a number of nearby school systems so that observation discussion and participation even practice supervision may take place

2 Large collections of specific materials may be provided for scrutiny analysis and guidance

a Courses of study source units proposed teaching units logs of completed units numerous pupil produced charts working plans overt results of all kinds

b Typical teachers plan books lesson plan forms, and so forth

c Tests of all kinds intelligence achievement diagnostic improved essay examinations problem situations inventories interview blanks and so forth

d New type report cards descriptive marking systems cumulative record cards any and all types of blanks used in administering a large school school registers for rural and small schools all types of instruments for securing background materials about the learning situation

e An extensive collection of supervisory programs secured from actual situations and from class projects

Extension class groups and campus classes largely made up of students with regular positions are usually unable to get together to organize group projects to work in committees or to follow some of the desirable modern procedures in learning Outside reading is also usually difficult to accomplish Students of this type can, however be encouraged to apply the exercises and reports to their own current problems to bring in detailed analyses of actual problems in the field Class discussion is thus not only kept in touch with reality but greatly enriched

Classes made up largely of students in residence may conduct the course as a cooperative group enterprise, setting up projects, using committees, field trips reports and critical discussion Intimate interaction both observational and participatory, with nearby school systems is genuinely valuable

Bibliographies in general will be very brief, confined to a minimum of selected references useful as supplementary reading A few, notably that for the first chapter, will be quite lengthy since they deal with problems which are currently developing in the periodical literature References to primary research sources will be found in the footnotes and not repeated in the bibliographies Student reports may be used to bring more recent materials before the class

Discussion Questions for Quick General Introduction

1 State any new ideas derived from reading the chapter (Differences in statement and in opinion usually stimulate a clarifying class discussion)
2 Ask for extension or clarification of any item not clear to you
3 State three or four principles or concepts of summary nature which best present the thought of the chapter
4 State any ideas long held by you and regarded as sound which seem to be contradicted or at least called into question by this chapter

Discussion Questions Calling for More Extended Analysis

1 Secure any textbook in supervision and analyze ten consecutive pages chosen at random Select specific sentences that indicate adherence to the older theory of imposed education and of improvement through imposed supervision or which indicate adherence to the newer functional educational and cooperative supervision
2 While examining the text selected note the definition of supervision or the statement of major functions Make critical comparison with the definition in this volume
3 From experience observation or reading present illustrations of typical supervisory procedures found in the business world Make comparisons with educational procedures
4 Prepare a statement covering three or more distinct points showing that the advances made by educational science and philosophy are such as to necessitate supervision to aid in cooperative dissemination and interpretation of new materials Be specific
5 If possible add from experience or observation further points to the contrast between traditional and modern supervision page 13
6 If possible add further arguments indicating the necessity for supervision supplementing the list on page 36
7 Examine critically the definition of supervision given on page 12 in the text
   a If there are any items omitted which you think should be included, mention them with supporting arguments Be sure you have actually found new and different points that your suggestions are not already legitimately subsumed under some point now listed
   b If there are any points with which you cannot agree present your arguments

Individual Reports

1 Present a brief oral report critically summarizing three or four recent studies of the supervisory duties of principals, or general supervisors, or certain special supervisors
2 Summarize and interpret for supervision the facts presented in any recent investigations of the training levels of teachers in the United States These will be found in periodicals, state bulletins, research monographs and so forth

3 Summarize three or four recent articles which report what teachers want of supervision or their attitudes toward it

4 Select from the listing of articles in *The Education Index* three or four on supervision which promise to be objective and three or four which promise to be mere descriptions, or opinions, or casual comment Critically compare the methods of presentation and the conclusions

Suggested Readings

The various standard textbook treatments of supervision are not numerous and nearly all were published some years ago These are easily available in any card catalogue hence space is not taken to list them here

General Volumes Yearbooks and Monographs

Association for Supervision and Curriculum Development *Leadership Through Supervision, 1946 Yearbook* (Washington, D C, National Education Association 1946)

Some good general discussions Fragmentary but good data on current practice Good illustrative programs

Department of Elementary School Principals *Twenty First Yearbook In Service Growth of School Personnel* (Washington, D C National Education Association, 1942)

Department of Supervisors and Directors of Instruction[25] *Fifth Yearbook, Supervision and the Creative Teacher* (Washington D C National Education Association 1942)

Here is a valuable and stimulating early discussion of the beginnings of what is now a modern concept in supervision

——— *Sixth Yearbook, Effective Instructional Leadership* 1944

This is another excellent early discussion of the substitution of leadership for authority

——— *Eleventh Yearbook Cooperation Principles and Practices* 1939

An excellent general summary with specific materials is given in this study

——— *Fifteenth Yearbook, Leadership at Work,* 1943

Here is one of the most valuable references available The whole volume should be read It contains the now well known Fable of Joe Brown and how he learned the meaning of leadership

Koopman G Robert Miel, Alice and Misner Paul J *Democracy in School Administration* (New York D Appleton Century Company Inc, 1943)

This is an exceptionally valuable book Students may well start reading the whole volume as they begin the supervision course Specific chapter references will be made to accompany later chapters in this volume

Hodges James H and Pauly Frank R *Problems of Administration and Supervision in Modern Elementary Schools* (Oklahoma City Okla Horton Publishing Co 1941)

Otto Henry J State Department Functions in Supervision,' *Review of Educational Research* (October, 1943) Ch 2 See p 372 for reference to several studies

[25] Since 1943 the National Department of Supervision and Curriculum Development. Since 1945 the Association for Supervision and Curriculum Development

PETERSON Hilda L *Trends in Supervision 1904 1934 as Revealed by an Analysis of Periodical Literature,* Masters Thesis University of Chicago, 1935
This study is a good summary but it needs revision to include up to date material

General Sources Which Will Be Useful Throughout the Course and to All Workers in the Field

The Review of Educational Research (published quarterly)
The Encyclopedia of Educational Research
The Education Index
Research Bulletins of the National Education Association
Yearbooks of the National Department of Elementary-School Principals and of the Department of Supervision and Curriculum Development

Representative Current Articles

ARMSTRONG, W I What Teachers Prefer in Supervision *Educational Method* Vol 15 (February, 1936) pp 270 272
BAXTER Bernice Supervision as Cooperative Planning and Guidance *Childhood Education* Vol 17 (September 1940) pp 15 17
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BRUECKNER Leo J and KOPNER R Organismic Supervision' *Elementary School Journal,* Vol 40 (February 1940) pp 435 441
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LISBRE1 W S Trends in the Improvement of Teachers in Service *New York State Education,* Vol 29 (October 1941) pp 8-9
FITCH H N *An Analysis of the Supervisory Activities and Techniques of the Elementary School Training Supervisors in State Normal Schools and Teachers Colleges,* Teachers College Contributions to Education, No 476 (New York, Bureau of Publications, Teachers College, Columbia University, 1931)
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HEFFERNAN, Helen Supervision Appropriate for Progressive Schools,' *California Journal of Elementary Education,* Vol 6 (August, 1937), pp 21 25
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MACKENZIE, Gordon Supervision Confronts a Changing Curriculum, *California Journal of Elementary Education*, Vol 5 (February 1937), pp 136 143

——— 'Concepts Which Challenge Supervision *School Executive*, Vol 56 (January 1937) pp 172 171 (February 1937) pp 226 227

MILLER E O Changes in Organization Administration and Supervision,' Report of American Educational Research Association 1935 pp 162 164

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REEDER I H Supervision in Modern Schools *Educational Administration and Supervision* Vol 22 (December 1936) pp 641-652

SYMONDS Percival M Supervision or Counseling ' *Teachers College Record*, Vol 43 (October, 1941) pp 19 56

Teachers Tell How Supervision Can Help *School Management*, Vol 18 (November, 1943) p 71

WAPLES Douglas 'Teacher Difficulties as a Basis for Supervision,' in *Scientific Methods in Supervision Second Yearbook* of the National Conference of Supervisors and Directors of Instruction (New York Bureau of Publications Teachers College Columbia University 1929)

WEBER C A Techniques of In Service Education Applied in North Central Schools *North Central Association Quarterly* Vol 17 (October 1942), pp 195 198

——— and GARFIELD, S I Teacher Reaction to Certain Aspects of In-Service Education,' *Educational Administration and Supervision* Vol 28 (September 1942) pp 463 468

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II

Principles Governing the Processes of Supervision

SECTION 1

INTRODUCTION TO THE NATURE OF PRINCIPLES

The factors controlling action When asked what generally controls action or conduct the average citizen will usually reply one's philosophy or principles After a moment's thought he will usually add that action is controlled also by one's purposes (objectives) Confused discussion is then likely to ensue regarding the nature of objectives and principles and the relation of one to the other A cynical citizen at this point may interject that purposes and principles are all window dressing action is really controlled by expediency! Cynical though it may be, this statement should not be brushed aside since it points to another, often overlooked factor in the control of action namely, the hopes and fears of the individual the successes and frustrations the hidden pressures the basic temperament—in short, the human nature or personality of the actor A more objective citizen weighing both answers might say that because human nature is good as well as bad the individual will often spurn expediency but still be forced to act contrary to principles or desirable objectives because of limiting factors within the situation which are beyond the control of the person The realities of a given situation the economic status of the individual the opportunities available for better status health and strength prejudices and discriminations present facilities available, and so forth, are often determiners of conduct

Controls over action then include *objectives, principles, human nature,* and the *realities of a given situation* None of these by itself is sufficient to explain or to control action All are usually operable in a given situation Separate chapters are devoted to objectives and to study and improvement of the socio physical environment The effect of human nature is indicated in several chapters Extended treatments can be found in volumes on human motive The present chapter deals with principles as one guide to supervisory action The volume as a whole tries to indicate the desirable integrations of the several controls

The distinction between principles and techniques [1] The bulk of writing and thinking about education generally, about supervision specifically, has been concerned until quite recently with analysis of techniques, procedures, mechanisms Leaders have always supplied excellent materials on aim and philosophy, but the rank and file has been concerned chiefly with details and processes The majority, the huge majority in fact, of teachers and educational workers generally, is either unaware of or but hazily informed upon the general aims and principles of education upon the relation of education to the social order, to the philosophy (principles) of their own society Criticism of educational workers is not intended, this is but a simple statement of fact The remedy lies within the province of teacher training, preservice and in service (supervision), and is emerging Before turning to an organized discussion of principles, let us define and contrast techniques with principles

Techniques as ways of doing things Any given thing is always done in some particular way Indeed there are usually several ways of doing it For example, there are several ways of tying one's shoes of teaching children to add of correcting errors in children's thinking These may vary in efficiency but that is not our concern here The point is that in teaching children to multiply or in assisting them to correct language errors a teacher proceeds in a given and particular way which can be observed and accurately described These specific ways of doing things of whatever nature are called *techniques*

Since the actual doing of anything in this world, be it teaching, playing a violin driving an automobile or participating in government, will always involve actual definite techniques since these techniques are observable, and since they dominate the attention of the average person great stress has always been placed on technique, or way of doing things The average person wants to know "how to do it" Thus the normal schools and often teachers colleges stress *methods*, that is, techniques of teaching arithmetic, of teaching language, and so forth The "practical" teacher as a rule is very critical of the more competent professors of education of advanced textbooks, and of the best supervisors because these latter will not more frequently give specific directions for the performance of specific tasks The competent professors and supervisors know that such prescription of specific procedures is, as a rule, a form of quackery They would rather attempt to lift the teacher to the level of thinking of her problems in terms of principles Herein lies an interesting situation in education, or for that matter in any field of human activity

The explanation probably lies in a critical analysis of the types of tasks and the levels of difficulty involved When a task is simple, probably the best way to teach it is on the technique level This, however, does not at all appear to be the case with more complex activities such as teaching,

[1] A S Barr Principles versus Techniques, *Journal of Educational Research* Vol 30 (September 1936) pp 17 19 These pages based on this article

getting along with others, developing desirable personality traits, or operating a government

The fundamental assumption underlying the technique approach is that the next time one approaches a task or any given thing to do, it will, in detail, be like the last one, and the one before that, and so forth This of course is not at all true particularly of the more complex forms of behavior This assumption, usually completely overlooked by the so-called 'practical" person, gives rise to innumerable mistakes in technique and to serious blunders in the management of specific situations In teaching for example, pupils are different not only from class to class and among themselves, but from day to day The conditions under which one works or teaches differ from time to time and from place to place Similarly with purposes, equipment, and so forth The workers or teachers themselves differ But if one knows only techniques and uses the technique approach, he must treat all these very, very different situations as though they were alike, or he must know a truly infinite number of techniques Obviously, either solution is weak and fraught with endless possibility of error This, however, is not the greatest difficulty with the technique approach

The technique approach has two other weaknesses far more important than the foregoing It seriously interferes with the discovery of new techniques, and it almost prevents intelligent evaluation of such techniques as are already in use

Though it does not preclude discovery of new techniques, this approach does unquestionably reduce such discovery to the level of crude accident resulting from low-type trial and error The 'practical' teacher or administrator almost blindly tries this, that, or the other in the hope that something will eventuate Many of the trials are almost certainly doomed to failure since they are inspired and illuminated only by present practice

Although the technique approach does not preclude evaluation of techniques, it does reduce it to the level of evaluation on the basis of wholly uncritical personal opinion and experience Limited, fragmentary, unanalyzed experience is one of the most misleading bases for evaluation in existence - How does one know that a given technique is the best, or even that it is good? The complacent so-called "practical' teacher constantly justifies or validates certain techniques with the cliches, "It works" or 'I get results This is naive Any technique from excellent to incompetent works, "gets results ' What we must ask is, does the technique "work" *economically* and *effectively* to "get results" which are desirable under our accepted philosophy and under given conditions? This brings us back to principles Too often the "practical' worker accepts

[2] C V Good A S Barr, and Douglas E Scates *The Methodology of Educational Research* (New York D Appleton Century Company, Inc 1936), pp 3 4

W H Burton, *Introduction to Education* (New York, D Appleton Century Company, Inc 1934) pp 603 605

Both these references contain sharp, incisive indictments of the 'experience basis

results as proof when the results themselves are not worth anything Practical workers often confuse between the actual results and their opinion of results achieved Often they do not even know the actual results

Nothing that has been said may be construed as a derogation of technique as such To do anything, one must have facile command of techniques, that is, be able to perform certain activities with skill and dispatch However, to remain on this level, to attack new situations with no other equipment than techniques is to be intellectually immature There are factors more important than techniques, and to these we shall now turn

Principles as ways of controlling the doing of things. A principle is a verbalized statement of an observed uniformity relative to some class of objects It may pertain to essential characteristics, or to conditions, or to rules of action For instance, looking at a clock, a chair, a bed, and a rug, we might observe that all of these, diverse in appearance and structure, are alike in being articles of household furniture A common characteristic is indicated If we observe truly efficient activity whether in teaching, running a street car, managing a bank, or what not, we will surely note that all of the participants are genuinely interested in what they are doing A common characteristic of effective activity is abstracted The statements of these observed uniformities, when thrown into general form, are *principles* Principles—that is, general rules or laws, concepts, fundamental truths, generally accepted tenets—are the guides by which we proceed from one situation to another They are enormously important for the governing of action—the operation of techniques

Principles may arise either from critically analyzed experience or from systematic investigation They will be of the same order but those derived from systematic investigation are far more reliable since the precautions against error and the controls are more exacting than in ordinary observation and experience

Workers in any complex field who are equipped with "the theory of the thing"—with principles that are statements of regularity, uniformity, consistency observable relative to a long series of isolated specific cases, are definitely superior to workers on the technique level In the first place, being possessed of a principle which covers many cases, the worker knows that cases will differ greatly in some aspects even though a fundamental likeness exists Hence he knows well that "a technique" is not the answer to any specific situation *One* of *several* techniques must be chosen Furthermore, the principle automatically groups the techniques from which to choose since the techniques must bear on the fundamental contained in the principle This makes for enormous economy of time and effort in choosing among techniques to try It eliminates much of the blundering trial and error of the practical worker

In the second place, principles greatly aid the discovery of new techniques They are hypotheses which direct the search Blind trial and

error is eliminated, the field of search is sharply restricted, invention is illuminated by the fundamental in the principle and not obfuscated by striking but non fundamental aspects of the specific task or situation under consideration

Lastly, principles aid in the evaluation of techniques since they furnish a broader basis and a fundamental one on which to judge the technique The principles define the item which must be scrutinized in evaluating results A definite and fundamental aspect of the situation forces inadequate personal opinion out of the focus

Techniques and principles both necessary Scholars in other fields often criticize workers in education as being superficial Seeing the practical task before him, and being equipped with a none too fundamental training the educationist has been intensely interested in techniques He has resented the criticism of superficiality, even though there is some reason for criticism Techniques in education are often treated differently from those in most other fields University courses in government, for instance, are usually courses in the principles of government—not techniques Courses in money and banking are courses in the principles of money and banking In truth, practically all of the well established university subjects—history, philosophy, the various sciences, sociology, politics, and economics—are built around principles and not techniques It is otherwise only in education where techniques have been glorified and principles minimized Whatever may have been the facts and necessities in the past, there is at present a definite swing toward principles in education This would seem to be in line with the increasing organization of the field and the increasing maturity of thought therein Techniques, important as they are, constitute the ever changing, fleeting, fluctuating aspect of life or of any field of action Underlying these are the supposedly more permanent characteristics that constitute the principles of human activity and are the determiners of success or failure

Techniques are necessary and important—in fact nothing could take place in any field without *ways* of doing things! The point is that both principles and techniques are necessary but that principles are more fundamental Principles not only govern the operation of techniques but make possible their refinement and extension

Principles, techniques, and supervision As we have indicated in the preceding paragraphs, education has been engrossed in techniques with less attention to principles Supervision has consisted largely of handing out techniques In fact in most instances the teachers who often complain temperamentally of "direction" or "control" from supervisors actually demand and desire the prescription of specific methods They decry general or "theoretical" assistance from supervisors This is true even today despite the improvement of teacher-training and the increasing understanding of teacher initiative and participation The so-called "practical" teacher is the worst offender since her level of training and insight is

that of the device and not that of intelligent independent invention of techniques based upon principles

The spirit of modern supervision stresses not merely teacher growth but teacher participation in the study and improvement of the total teaching-learning situation This necessitates a progressive movement away from the prescription of specific devices and toward the constant stimulation of the teacher to the understanding of principles and their use in guiding behavior The teacher of the future should be a free, ingenious individual evolving his own minor, everyday techniques through intelligent use of principles Hence, supervision though still suggesting techniques when necessary, will always strive toward the development of all workers toward basic understandings underlying the various aspects of the total educational organization and process

The older volumes on supervision include elaborate discussion of everyday techniques Subsequent chapters in this volume will present many, many illustrative techniques and explanations of their application The chief emphasis, however, will be upon the basic structures of principles of education

SECTION 2

THE BACKGROUND AND DERIVATION OF ACCEPTABLE PRINCIPLES OF SUPERVISION

Principles are one of the necessary controls which inform and guide operations in any field But which particular principles? Where do these principles come from? Chief sources for principles of supervision will be the democratic philosophy which is accepted in the United States and the scientific movement in education

The democratic philosophy will supply principles for supervision in the United States A democratic philosophy will be a statement of those values, aims, and policies deemed valuable in the furtherance of democracy Certain individuals claim that there is little or no agreement on the meaning and principles of democracy On the contrary, there is very great agreement among competent students Because of this argument in the field and because of the vital importance of democracy in the present era, a number of principles important in themselves and of particular importance for education and supervision will be described briefly Detailed discussions are available in great volume

Democracy is a way of life and not limited to political forms The average citizen thinks of democracy in terms of political organizations and procedures and rarely in any other way This causes much of the confusion in current thought Democracy did develop in the political field for reasons which are significant Democracy and its political forms emerged as a defense against the constant violation of the rights of the common man by those in positions of power, in opposition to the doc

trines of a class society, the divine right of kings Catch phrases grew up, "all men are equal," "one man is as good as another" Participation in one's own government through direct voting as in pure democracy or through elected representatives is the essence of political democracy

Democracy actually is much broader, applying to the economic and social orders as well We are engaged at the moment in a struggle to achieve an industrial and economic democracy parallel to the political The principles of democracy apply to all of life

Democracy guaranteeing political rights is not equalitarianism Political democracy guarantees to men the right to participate in their government the right to a hearing before the law, the right to trial by their own neighbors, the right of access to those things which will enable each to develop his own unique personality and to live a decent life All men are equal in these and similar things

The political idea that all men are equal has been carried over by superficial thinkers, demagogues and by the naive populace itself and has been applied to any and all fields The originators of the political doctrines of equality never intended this, a few even warned against it in the very beginning Serious difficulties immediately arise (*First*), the incontrovertible facts of biology come into sharp collision with any such foolishness Men are *not* equal in natural endowment of brains, in physical strength, in health or in any innate characteristic (*Second*), training opportunity and the general effects of different environments still further increase and exaggerate the natural and inescapable *inequalities* among men Men are enormously unequal in knowledge, in insight, in appreciation, in honesty in ambition, in resourcefulness in motor skills, and in ten thousand other items Abilities, contributions, and rewards will differ mightily between individuals Men are guaranteed equality as citizens before the law Legislative enactment cannot make them equal in any other way It is nonsense to say that they are equal or to attempt to treat them as equal in the home, in the market place, or in the kindergarten

Democracy emphasizes the worth of persons The clash between equality borrowed from the political field and flatly contradictory facts in other fields produced a new concept of inestimable worth The basic principles of several religions, where they are not obscured by formulas and rituals, contributed The concept was not in the *equality* of men but in the *worth* of men The individual soul is of supreme value to God, the individual man, of supreme value to a decent society Men are not equal in ideas or abilities Men cannot be considered equal—but they can be considered Men are not equal in their contributions to the common life, but they are equal in that each may contribute Men are not equal in the worth of their contributions, but are equal in their right to the respect of the other contributors Each individual is to contribute to the group life and to be respected for that contribution, however simple and

humble The concept of the worth of individual human beings, of respect for personality, and of development in creative ability is a principle of supreme importance everywhere in life

Democracy includes obligations as well as rights, a democratic conscience must be developed The political rights within democracy are guaranteed legally The obligations and responsibilities which balance these rights cannot be demanded or required by law Obligations and responsibilities must be freely assumed by free citizens The increasing democratic participation in economic and social affairs must be balanced by self-assumed obligation to contribute one's share in making this participation work

The weakest link in the democratic chain lies just here Rights are accepted as a matter of course, are enjoyed, are demanded We have not seen nor been properly educated to assume the inescapable obligations which the rights entail Figures presented in *Learning the Ways of Democracy*[3] are disturbing Two thousand high-school students were asked to define "democracy in their own words Ninety per cent could present acceptable statements, but of these over two-thirds defined democracy *solely* in terms of rights and liberties with no reference to any responsibilities or obligations Acceptable statements were confined also to political democracy, fewer than 8 per cent referred to economic democracy Three out of four of the 8 per cent who did try to define economic democracy did so in terms again of economic privilege and not of responsibility

Evidence of civic irresponsibility of youth was also discovered in the New York Regents Inquiry and is presented by Spaulding as follows [4]

> Despite some success in acquainting boys and girls with their rights as citizens neither the school nor any other social influence has developed in these boys and girls an active social conscience High-school pupils on the point of leaving school display on the contrary a disturbing inclination to evade social responsibility, and young people who have left school undertake few activities which will contribute in any way to the public good

Members of the Educational Policies Commission in the course of their tours to gather material made another interesting discovery Each high-school principal was asked to arrange interviews with three groups of students (1) leaders in school affairs, (2) outlaws or non-conformists, and (3) "forgotten men," those who caused no trouble attracted no attention since they participated neither constructively nor obstructively The leaders, those who lead activities, held student offices, got things done, were a relatively small group but were getting considerable training in some aspects of democratic leadership The outlaws and non-conformists

[3] *Learning the Ways of Democracy* (Washington D C Educational Policies Commission of the National Education Association, 1940) pp 46 50

[4] Francis T Spaulding, *High School and Life*, New York Regents Inquiry into the Character and Cost of Public Education Studies (New York McGraw Hill Book Company, Inc 1938)

were regarded unfavorably by the school staff, but the interviews revealed that these individuals were just as bright and just as loyal to the school as were the leaders They came from less favored economic classes, were less well dressed, had less suave manners Many were maladjusted, either mildly or seriously These individuals were given little chance to participate democratically They had been "outlawed" but clearly were not bad boys Despite the incorrect attitudes of many school staffs, this group does not constitute a serious threat to democracy

Coming to the third group, those who do practically nothing, the principals said that they had none or very few such students The facts are that this group constitutes roughly 50 per cent of the student body This group is a genuine drag upon the democratic process and may become in adult life the group easily led into viciously undemocratic beliefs and practices They constitute a great challenge, that of getting them into the on going participatory life of the school which is the training for democracy

The general problem, despite some of its darker aspects, is recognized, and excellent work is going forward The volume quoted, *Learning the Ways of Democracy*, is an excellent compilation of specific illustrations Hanna's volume *Youth Serves the Community*[5] contains a provocative account of many projects together with an extensive bibliography The article "Youth Has a Part to Play"[6] is also of great importance Many others are available All this means that the problem of developing a 'democratic conscience,' the recognition and assumption of responsibility, is under increasingly effective attack

Adults are the victims of their training and experience Democracy will not work without the development of the democratic conscience a firm belief in the principles of democracy, a sincere and persistent attitude of desiring to conduct oneself democratically, and an unshakable faith in the ability of human beings to achieve the difficult levels of democratic life Democracy will be successful to the degree in which individuals gladly assume responsibility and fulfil obligations

The individual who accepts respect for his individuality is under obligation to develop a personality worthy of respect A society which wishes to be democratic must afford opportunity for such development One who accepts the right to contribute to group discussion is under obligation to have something worth contributing Koopman, Miel, and Misner present a brief, apt illustration of the relation between right and obligation[7]

[5] Paul Hanna, *Youth Serves the Community* (New York, D Appleton Century Company, Inc 1936)

[6] M R Mitchell and others Youth Has a Part to Play *Progressive Education*, Vol 19 (February 1942) pp 87 109 Also published as a separate pamphlet

[7] D J MacDonald, Democracy in School Administration—Some Fundamental Principles, *American School Board Journal* Vol 63 (September 1921) pp 31 32 Quoted in G Robert Koopman Alice Miel and Paul J Misner, *Democracy in School Administration* (New York D Appleton Century Company, Inc 1943) p 141

Fundamental Rights	*Fundamental Obligations*
To originate ideas regarding any question or problem having to do with individual or group welfare	To be competent to originate worthwhile ideas, those that should command the attention of serious-minded members of the group
To pass judgment upon the ideas expressed by others, more especially those pertaining to group welfare	To be competent to criticize constructively rather than merely destructively, to get down to fundamental principles
To initiate reforms, to 'start something' which is believed to be for the benefit of the larger group rather than of a limited few	To think things entirely through, to anticipate fully the consequences of initiating and promoting any movement, and to be prepared to accept gracefully the consequences of his action
To propose or to promote sincerely and intelligently activities which are initiated by others until these have been finally accepted or rejected by the group	To work vigorously to get one's ideas accepted To cooperate fully in carrying out the expressed will of the majority

Democracy emphasizes for the group the common good as social aim Coordinate with emphasis upon the worth of the individual goes emphasis upon the constant improvement of group life, of society and its institutions A democratic society, be it a nation or a school system, is a way of life which has for its aim the continuous improvement of the life of the group, the continuous discovery of higher values, improved institutions the continuously emerging and improving "good life.' Democracy is not a fixed set of values and institutions to be perpetuated through indoctrination, it is evolutionary and flexible

Society in its historical development has evolved mechanisms and institutions through which it lives and evolves Certain institutions are regulatory in their effect upon the individual This is not curtailment of individuality or disregard for personality This is necessary to protect and conserve for all persons the values which are recognized as best for that society in the long run Side by side with the controlling and regulatory institutions, others have evolved which free the individual and stimulate his growth The individual grows in the worthy aspects of personality, society grows in those values which make for the highest type of life for the individual and for the group To the extent that institutions of the group are participatory and the individual sees that they are, the institutions will be upheld

Democracy emphasizes a flexible, functional organization of the group with freedom for all to contribute The two preceding points lead naturally to a third namely, the organization and functioning of a demo-

cratic group Democracy means for some that there shall be no groups, divisions, or "classes" in society The words *groups* or *classes* have unfortunate connotations Undemocratic groupings in society are based on the arbitrary and meaningless criteria of birth, wealth, "social position" Undemocratic groupings are relatively fixed A class or group is superior or inferior to another The school society has had arbitrary divisions with one group set above another

Divisions or groupings of some sort are necessary in any organization Democratic groupings will be based on necessary functions within group life and contributions to the common activity Common interests and abilities will be important Democratic classifications will be flexible, open to all, and with free passage from group to group Democratic groupings will not be distinguished as upper and lower, superiority and inferiority do not enter Any function necessary and valuable to group life is therefore worthy of respect, the groups performing various functions are equally worthy of respect Democratic groups are unified and integrated in their efforts not through external authority but through adherence to a set of ideals and to activities which have been set up by that group itself Any and all members are free to initiate problems for discussion, to make suggestions, to volunteer to lead, to carry out commonly determined plans

Democratic authority is derived from the situation, not from power under the law The problem of authority and its exercise has puzzled many students of democracy One group uses the slogans 'This is a free country, "I can do as I please,' "No one can tell me what to do' These slogans imply complete freedom from any restraint Another group asks how anything is to be accomplished unless someone in authority directs and commands How are incoherence and anarchy to be avoided unless authority is vested in someone and firmly operated? This implies authority in the traditional and legal sense, external authority applied by one group to another which had no part in setting up the authority

Democratic thinking holds that the alternatives are not those of no authority versus external authority exercised without the consent of the governed Democratic authority is derived from the given situation under study What does this mean? A problem of policy or of procedure, let us say, has arisen and is being studied by a group of educational workers Free discussion brings out that certain things should and could be done, they are demanded and made possible by known facts, by availability of local personnel and services Authority resides in the situation, in educational science and philosophy, and in local resources Recognized and accepted by the group, this authority permeates the group What does this mean? The group has determined what should be done and how to do it Various individuals will volunteer their expert services or will answer a call to serve The group knows what to do and who is to do it The group has authority derived from its cooperative study of the needs

and possibilities Within the plans carefully organized by the group in open meeting everyone exercises authority The authority is that of the group over itself and guaranteed by their study of the given situation In place of "obedience to authority," we now have the voluntary and conscientious execution of one's own part in the common plan This mutual recognition of responsibility is one of the obligations of democracy previously mentioned

Democracy substitutes leadership for authority Will cooperative group determination of policies and procedures "destroy" the "authority" of the superintendent, of the principal, even of the school board? This is an important question Legally, authority is vested in certain boards and executive officers This situation is likely to continue, at least on the books, for some time to come

The superintendent may, however, be regarded as a professional leader and not as an executive, as one who exercises leadership through providing conditions for full participation and cooperation for the entire staff, for leadership on the part of others, and not as one who determines policies and issues orders to be carried out by others

A community through its school board must have a trained, capable professional officer who can be depended upon to see that the school system is operated effectively Citizens, teachers, and other educational workers need to have one person to whom they can go for certain types of advice and help A designated head is necessary also to take action in cases of emergency and immediate need Democratic thinking holds, however, that all this can be provided without relying upon 'authority" in this person but through relying upon his skilled professional leadership Leadership which provides for free group formulation of policies and programs of action will achieve desirable ends far better than authority ever can Statements made only three paragraphs above will bear repetition A group so led thoroughly understands the demands of the situation and the action to be taken All have been heard, all have had opportunity to present views, all have entered their objections, if any Discussion has been free, minorities have been heard, conflicting views have been heard, and differences have been ironed out The decision then reached by majority vote represents unity, freely achieved It is the best thought of the group up to that moment Discussion can be reopened by anyone as obstacles are met or new data appear The policy and its implementation have been determined in such a way that every participant had a chance to help form them

The superintendent who exercises leadership will further the ends of education far more effectively than through the use of authority A democratic educational system will further the ends of a democratic society far better than an authoritarian system School administration in early days borrowed much from industry and business, both principle and practice, even though the ends to be served were quite different Today

it is interesting to note that business and industry, which so prided themselves on efficiency of organization and administration resting upon external authority, are increasingly using the methods of democracy in management The literature on this is significant and rapidly increasing

When all are imbued with democratic ideals, the imposition of the will of one person upon another is not an issue It is only sensible to recognize, however, that not all will rise to the opportunity to participate cooperatively Persons who are lazy, who are secure in their positions, who are obstinate either through honest ignorance or through mental inability to keep up with the group will remain inert or will actively oppose and sabotage cooperative programs The uncooperative individual, no matter what the cause, is a challenge to democratic principles and methods Each is entitled to honest consideration, to diagnosis, to sympathetic guidance and assistance Opportunities for growth are to be extended here as with the cooperative persons Democratic means are winning uncounted victories and bringing to participation, even to important creative contribution, many who were uncooperative It would be silly sentimentalism however, to deny the exercise of legalistic authority for the removal of these persons when all else has been fairly tried and has failed

Authority then, with the exception just noted which should occur so rarely as to be almost negligible, should give way to responsibility for leadership Chief responsibility rests upon the designated leader but this responsibility is shared by each and every member of the staff

Democracy uses the method of group discussion, deliberation, and group decision The general method of procedure has been clearly implied in foregoing pages, even described explicitly in a few The following chapter will contain further discussion of the actual operation of democratic discussion Establishment of the principle only is our concern at this particular time

Democracy utilizes experts The emphasis upon group discussion upon the free contribution by any and all individuals, has given rise to a serious misconception Certain old clichés of the man in the street exemplify this "One opinion is as good as another" 'Every man is as good as another" Nothing could be further from the truth Democratic discussion does not consist in the enthusiastic interchange of uninformed opinion A group cannot chat itself to truth An individual most certainly does not have a right to an opinion when competent, valid, and sufficient facts are available Individuals have always the right to question the facts, to examine the methods and controls under which the facts were derived, to suggest further investigation or experiment, but to hold opinions in defiance of all the facts we have is quite infantile The individual with the right to contribute, as stated earlier, has also the obligation to know the facts available, to know the canons of logical discourse, and to desire to proceed in accord with these controls

Democratic discussion in which all may participate has a place for

the expert This is especially true when dealing with genuinely technical phases of education Common sense, so valuable and sound when dealing with the non-technical, often repeated, everyday concerns of human activity is practically always wrong when it opposes strictly technical conclusions Experts in all aspects of educational procedure will participate through supplying data and tested conclusions, sometimes through aiding in further experimental or logical investigation

The differences in the use of experts in democratic and non-democratic situations are significant The expert participating in democratic discussion is (1) just one member of the group on a footing with the others, (2) whose contribution, no matter how expert, is not imposed on the group by authority, nor uncritically accepted by the group The expert, (3) accepts responsibility for making his contribution clear to non technically trained colleagues, of reducing it to practical implications for various members of the group, of cheerfully supplying the background of experimental analysis which supports the conclusions The contributions of the expert are (4) subject to revision, not through uncontrolled argument, but through further experimental work or critical logical analysis

Democracy emphasizes experimentalism Group decisions are for the purpose of directing action The results in experience with the try-out of group decisions will influence later and continuing deliberations There will be continuous experimental interaction between decisions and try-outs The democratic spirit and the scientific attitude are at one in their emphasis upon experimentalism

Guidance for supervision from the democratic philosophy Democracy has, *first*, made untenable the older relationships between the leader and the led Imposition and direction as techniques have been discredited *Second*, it is recognized that leadership and creativity appear upon all levels and among all types of persons *Third*, cooperative techniques replace those of central determination and direction Policies, plans, techniques, and the evaluation of these items are group determined All types of persons are invited to contribute to the formulation of plans and decisions which affect them pupils, parents, community leaders and organizations, teachers, general and specialized educational workers, administrators and so forth All persons from superintendent to humblest cadet teacher are regarded as co workers on a common task Each has a contribution worthy of respect, even though differing greatly in weight or importance *Fourth*, authority is derived from analysis of the needs and possibilities of a situation

Democracy anywhere is participatory group life enjoyed by free individuals possessing maximum opportunities for participation This sounds silly and utopian when we consider the long tradition of absolute authority in the management of school affairs, the flagrant misuse of authority by many leaders Educational workers on some levels are still

looked upon as hired hands Boards and superintendents often speak of "my" school or "our" school system Democracy will not be achieved without many years of arduous effort and courage in leadership, without extended education in the nature of democracy itself—but it can be done The proof is that along with autocracy in school administration in many places, there exists in other places excellent illustration of thoroughly democratic participation by all in forming policies, in setting up supervisory programs in organizing for curriculum construction, and in many other activities

Supervision derives guidance from the philosophic method (as well as from the democratic philosophy), and from the scientific method The philosophic and the scientific methods are each procedures for solving problems The general method of reflective thought or problem solving is common to both The scientific method will be presented in some detail with a summary of values and limitations in Chapter XVII The philosophic method has been explained and briefly illustrated in a number of places, particularly in Chapters III and IV *The two methods are not mutually exclusive* The distinction below is arbitrary and for emphasis only

Brief summary concerning the scientific method and its contribution The scientific method deals with the discovery and establishment of facts and laws, it seeks to identify and then to determine the validity and reliability of those facts and laws The validated materials then become the scientific background of education

Scientific method furnishes an accurate account of things as they are and of what may be expected to happen when dealing with measurable and controllable items The typical methods of science are experimentation, laboratory analysis various survey techniques, analysis of and validation of documents Bias on the part of the individual scientists cannot be wholly excluded but effort is made to control it, first through recognizing the nature and operation of motive, feeling, prejudice, opinion, and, second, through use of instruments of precision, repetition of experiments under control Much use is made of statistical techniques in the analysis of data

Scientific procedures, data, and conclusions differ significantly from the procedures, data, and conclusions of untrained workers in six respects greater *precision*, greater *objectivity* (or *verifiability*) closer *impartiality*, greater *sufficiency of basis*, greater *expertness*, and more *systematic organization*

Definite limitations appear when scientific methods are applied to the social sciences of which education is one *First*, education is a dynamic, complex, social process hence very difficult to control and measure *Second*, the materials of any social science, notably education, are different from the materials of the physical sciences The data in education are not as discrete as exact, as reliable in performance as the data in the

physical sciences *Third,* the sharply analytic attack, essential to scientific investigation may actually interfere with or invalidate an inquiry in education The strict control and even exclusion of certain factors in an experiment upon children's learning, so necessary in controlled scientific investigations, may actually destroy the value of the study The very factors excluded may be vital influences within any normal learning situation Certain errors not inherent in the method are sometimes introduced by given individuals A too rigid insistence, *first,* upon purely "objective' data leads into the error of rejecting the valuable subjective data which can be produced by trained and competent thinkers *Second,* there is sometimes a tendency to overgeneralize, or *third,* to undergeneralize

Guidance for supervision from science and its method (*First,*) the scientific method focuses attention upon getting the facts, upon determining the situation as it exists, upon diagnosis Supervision, in setting up objectives, in determining needs, in examining resources, in planning procedures, and in evaluating results will be influenced by the methods and attitudes of science (*Second,*) supervisors are increasingly using the methods or practical adaptations of them, and the scientific attitudes in attacking practical everyday problems (*Third,*) the scientific movement in education has developed a huge body of background material Many many facts are known about various aspects of the educational process Administrators supervisors and teachers, no matter how gifted and ingenious can never be fully competent if ignorant of the technology of educational science Though by no means the whole of it training for supervision must include sound background in this material The supervisor must know and utilize through adaptation to his own unique situation such conclusions as we have Gross blunders can be avoided through knowledge and use of scientific methods and materials Uncontrolled subjective judgments, sentimental or even temperamental judgments and conclusions give way to controlled subjective judgments, to objectively determined facts, to reasonable standards and principles Scientific findings always may be attacked if one can point to flaws in the original investigation to failure in controls, to errors in the analysis of data or in drawing conclusions The suggestion of refinements in techniques or of new inquiries to be made is always desirable The rejection of scientific conclusions on the basis of one's 'experience,' or because one's opinions are different, is childish

Brief summary of the philosophic method and its contribution The philosophic method deals with the formulation and justification of policies, aims, values, meanings The philosophic method utilizes all objective data available but examines these data not as to their scientific validity, but as to the assumptions behind them, and particularly as to their bearing on life as a whole The method involves reflective thought upon quantitative data in their qualitative aspect (the meaning of facts),

and upon qualitative data, the ideals and aspirations, the values and ends thought to make up the good life Bias is controlled, in so far as it ever can be, through careful adherence to the canons of logic, through conscious attention to the pitfalls of thought (the logical fallacies) and through careful attention to the nature of language (semantics)

Philosophic procedures and conclusions differ significantly from the procedures and conclusions of the untrained thinker in that they are likely to be more *closely allied with some conception of life as a whole,* that is to be more inclusive of all conditioning factors, more sensitive to remote consequences

Definite limitations and difficulties exist in the use of the philosophic method *First* it rests upon mastery of the canons of logic, a system very difficult for the average thinker to master *Second,* it is naturally liable to the well-known pitfalls and fallacies which attend subjective processes *Third* it depends upon objectivity in language in contrast to objectivity through measurement as in the scientific method Competent, honest thinkers will differ because of inherent difficulties in language usage The current emphasis on semantics is in part due to the increasing necessity of clarifying language and meaning

The common criticism that philosophic conclusions are provisional tentative, and incomplete is not a legitimate attack upon the method All conclusions when properly understood, whether scientific or philosophic, are tentative

Certain criticisms are voiced against either of the methods but are in no sense inherent in the methods, they refer to weaknesses in or errors by individuals using the methods Philosophers and scientists alike may be greatly influenced by preconceived ideas by conscious or unconscious prejudices may argue from inexact or incomplete data may conceal or exaggerate data, may be careless about controls, about logic or about language The cure in each case is not in attack upon the basic methods but in the training and moral growth of the individual

Guidance for supervision from the philosophic method Supervision will increasingly consider the nature, the remote aims, the values of the great society within which education operates The immediate community as a whole, its resources and facilities, its problems its aspirations, its whole social climate will be considered as the matrix of immediate educational problems and procedures Outcomes will be evaluated in the light of good both to local society and to the larger one within which smaller communities exist Philosophic supervision will increasingly see education as a whole correlative with life as a whole and affecting individuals who are living wholes Subject matter, materials, the immediate teaching learning processes will be evaluated not in and for themselves but only as they serve a remote policy agreed upon by the society involved

Dynamic logic, the less orderly procedure of thought in given situations, more important than the rigidities of either method The supervisor, it is clear, will not utilize either method in strict sense to any great degree Occasions will be few when facts, laws, aims, or values will be determined *de novo* Supervisors will, however, be engaged constantly in problem-solving in the local situation, will participate occasionally in state- or nation-wide inquiries The chief influence of the two methods will show in attention to fact, to controls, and in the attitudes of open mindedness and suspension of judgment

Orderly, sensible procedures of thought are highly desirable as an ideal for which to aim The actual processes of thought in the solution of problems, however follows no such orderly and smooth sequence as formal outlines of logic would imply Formal logic, in simple terms, represents a summary of correct thought after the thought has taken place The summary is smooth and sequential The actual process of thought in-progress is something very different The term *dynamic logic* is coming to be widely used to designate the logic of inquiry or process as distinguished from the logic of proof or of post-procedural summary

Actual problem solving in process includes innumerable errors and corrections digressions discussions ending in blind alleys the laborious trial and checking of guesses, the tedious process of validating and evaluating Terms must be defined and redefined schemes for classifying one's ideas must be made and often scrapped Analysis, selection, and discrimination of ideas and process are continuous Many many errors and successes appear before the problem is solved These and many others are the essence of dynamic logic but are not seen in summaries of formal logic The individual learns the best methods of proceeding, of avoiding errors by discovering them within his own problem-solving processes Experience with problem-solving will enable one to achieve the understandings and skills of formal logic without having them thrust upon him [8]

Supervision will use, then, when the strict methods of science and philosophy are not applicable, less orderly dynamic methods of thought in solving problems Supervision is not the operation of formulas, routines, rules of thumb It is not the inflexible application of experimentally validated conclusions, valuable as these are Education and supervision within it is an intellectual adventure requiring ingenuity and

[8] Dynamic logic is puzzling to many students Good accounts are available in

John Dewey *How We Think* (Boston D C Heath and Company 1910 revised 1933) Revised edition contains three new chapters which present in detail the differences between formal and dynamic logic

———, *Logic, The Theory of Inquiry* (New York, Henry Holt and Company, Inc 1939) Early chapters

W H Burton, The Guidance of Major Specialized Activities Within the Total Learning Activity' (Published by the author Cambridge, Mass , 1944) Pages 13 22 contain a very brief account for beginning students

initiative in meeting the succession of problems which constitute the day's work The best scientific and philosophic training in the world will not show us how to supervise—it will show us how to find out how to supervise

Supervision is both scientific and democratic. A few individuals still speak, write, and supervise as if science and democracy were antagonistic, or at least not easily combined The truth is that each is necessary in any integrated theory and practice Each is a fundamental, necessary and inescapable factor in any mature thinking about anything of importance They are one in their emphasis on experimentation The misunderstanding arises from superficial thinking, or through contact with definitely poor practice The terms *scientific supervision* or *democracy in supervision* may each be used by different persons in different situations with greatly differing connotations In one situation, either term may mean supervision that is fine and splendid, in another situation, the same term may refer to supervision that is unfortunate and detrimental

Scientific or democratic supervision at their worst In order to place emphasis upon the positive we will examine first the negative conceptions At its worst *scientific supervision* means overemphasis upon quick and narrowly objective results in fundamentals It may force teachers to adhere closely to the 'normal curve' in distributing marks Detailed rating schemes may be used Remedial programs of a mechanical and "subject matter" type may be utilized There is danger of too much reliance upon limited, fragmentary and misleading, although truly objective data There is often no scrutiny of what is called 'objective' Carried to extremes the uncritical unimaginative bungling use of scientific tools antagonizes and discourages first-rate teachers It results in a most undesirable formalization of procedure whether of teaching or of supervision Science aided us in disposing of the highly undesirable "personal" authority of individuals in power There is often substituted an equally undesirable woodenly "impersonal," authority of science

At its worst *democracy in supervision* is a euphemism covering genuine inefficiency and weak leadership Superficial exponents of *democracy in supervision* wander around the school system scattering sunshine wherever they go They pat teachers on the back, sympathize with their grievances, indulge their whims, give little help, and insist on nothing These procedures when accompanied by strong leadership in helping teachers to self-analysis and improvement may be powerful influences for good Operated at random and for the sake of the moment only, they constitute spineless supervision which is very likely to result in easy popularity and a great deal of sentimentality If teachers do not grow if pupils do not learn there is much talk about "placing responsibility on the teacher," 'stimulating growth by non-interference," 'encouraging teachers to do things their own way, the "sinfulness of imposition Not only is nothing required in the way of standards or results, but nothing is even suggested

In this sense *democracy in supervision* means either extreme laziness or muddle-headed stupidity

An ignorant enthusiasm for the science of education and for scientific method seems to make some persons harsh, arrogant, and dogmatic Similarly unbalanced emphasis on democracy and freedom seems to send some dancing among the daffodils when they should be attending to the spring plowing

Scientific or democratic supervision at their best At its best, *scientific supervision* means securing as complete and accurate a picture as possible of current school practices Then all scientific knowledge about learning materials and methods of learning is utilized to improve conditions The scientific supervisor is critical, analytic discriminating, and objective in thinking He must know and use the findings of scientific research know and use the best standardized tests in their proper place, know the limitations of these tests He must know the experimental and statistical data on individual differences, on adapting the schools to individuals Scientific supervision means respect for such facts as we have and proper use of facts It means knowing how to derive and check for validity new and current facts It means replacement of muddled "atmospheric" analyses and suggestions by competent, objective analytic methods

At its best, *democracy in supervision* means enlisting the abilities of teachers, principals and superintendents in the cooperative enterprise of improving teaching or other aspects of the teaching-learning situation The democratic supervisor has and expresses confidence in fellow workers he evaluates teaching on the basis of the understandings attitudes, and skills actually acquired by the pupils regardless of whether these were secured through teaching procedures suggested by him or not His classroom interviews with teachers are real conferences characterized by interchange of ideas and suggestions his teachers' meetings are participatory with opportunity for teachers to present opinions, to differ, to demonstrate The democratic supervisor encourages self-direction, self-criticism and self-control among teachers He realizes that growth requires not only opportunity but time

Functioning combination of science and democracy necessary It is futile to say that these two are antagonistic or that they cannot be combined They have already been and are always used together in any competent thinking Enough has been said in the preceding paragraphs so that a brief summary will suffice here Science contributes precision "factness, law, and a method of determining facts The philosophic method in general contributes sensitivity to aims, purposes, and values, and focuses attention upon implications The democratic philosophy in particular gives us emphasis upon the social outcome, puts attention upon personality and individuality, gives us a rational basis for authority, and emphasizes participation and cooperation within democratic authority Both use the experimental attitude and attack Democracy implies fair

dealing with all persons concerned, and science means fair dealing with all pertinent facts

Good supervision is creative The foregoing discussions, particularly of democratic procedure make clear that democratic life in any field will develop creativity Democratic supervision which provides ample opportunity for participatory discussions and group formulation of policies and plans, which treats all contributions with respect no matter how small or simple, inevitably stimulates creative expression from many, perhaps from all of the group Current belief is that every normal individual is capable of creative expression in some degree Growth and development of the total personnel including community members is definitely stimulated through creative expression Supervision in addition to providing opportunities for creative contribution will deliberately seek latent talent, will deliberately manipulate the environment to provide settings for creative expression

Creative participation grows somewhat slowly Leadership must be persistently resourceful in providing opportunities and in utilizing contributions as they appear The effect of creative supervision and administration will be reflected directly in creative teaching and learning Creative leadership in the long run is vitally necessary to the success of democratic life

The term *creative* is used here in its original root meaning which has dominated usage for centuries the suggesting devising inventing, producing something new unique, not before existent The more recent usage which regards as creative any recall of known materials or discovery of already existing materials is definitely rejected Recall and discovery of known materials are necessary and valuable in all problem solving Contributions of this type and the individuals making them should be recognized, but this is not to be confused with creativity

Supervision is increasingly professional Supervision is a part of the general teaching profession which is itself not yet fully professional Supervision like teaching is moving steadily toward professional status A specialized body of knowledge is growing up, together with a body of techniques which cannot be acquired easily or out of hand by amateurs Broad cultural training in addition to the professional is increasingly demanded Constant study is required to keep abreast of developments Obligations and responsibilities are self-recognized and beginning to be stated in codes of ethics Initiative and responsibility are increasingly earned by professional supervisors Self-evaluation and self-directed study and growth are increasingly evident

Supervision, like teaching, cannot eliminate incompetents from the profession Physicians and lawyers can be disbarred, but educators have not yet recognized this professional obligation Tenure is still flaunted as a defense even when gross incompetence and deliberate dishonesty are clearly manifest Eventually education as a profession must face this

problem of self-evaluation and self-regulation, of professional regulation of standards A few rare instances are available in which teaching groups have themselves urged incompetents to leave the local situation for the greater good of the greater number

Good supervision is judged by its results, seeks to evaluate itself in the light of accepted purposes This principle is largely self-explanatory in the light of foregoing pages The techniques of supervisory evaluation together with some sample investigations are set forth in Chapter XVI

Supervision proceeds through an orderly, cooperatively planned series of activities The principles and procedures for supervisory planning are elaborated in Chapter IV

SECTION 3

A SUMMARY OUTLINE OF PRINCIPLES GOVERNING THE NATURE AND PURPOSE OF SUPERVISION

The principles governing the administrative organization, the planning, and the evaluation of supervision will be set forth in succeeding chapters Principles here summarized relate to nature and purposes

PRINCIPLES GOVERNING THE NATURE OF SUPERVISION

1 Administration is *ordinarily* concerned with providing material conditions and with operation in general

2 Supervision is *ordinarily* concerned with improving the setting for learning in particular

3 Administration and supervision considered *functionally* cannot be separated or set off from each other The two are coordinate correlative complementary mutually shared functions in the operation of educational systems The provision of any and all conditions favorable to learning is the common purpose of both (See Chapter III for detailed subprinciples and procedures)

4 Good supervision is based on philosophy and science

a Supervision will be sensitive to ultimate aims and values, to policies, with special reference to their adequacy

b Supervision will be sensitive to 'factness' and to law with special reference to their accuracy

c Supervision will be sensitive to the emergent evolutionary nature of the universe and of democratic society in particular hence should be permeated with the experimental attitude and engage constantly in reevaluation of aims and value, of policies of materials and methods

5 Good supervision is (in the United States) based upon the democratic philosophy

a Supervision will respect personality and individual differences between personalities will seek to provide opportunities for the best expression of each unique personality

b Supervision will provide full opportunity for the cooperative formulation of policies and plans will welcome and utilize free expression and contributions from all

c Supervision will stimulate initiative, self-reliance, and individual responsibility on the part of all persons in the discharge of their duties

d Supervision will be based upon the assumption that educational workers are capable of growth It will accept idiosyncrasies, reluctance to cooperate, and antagonism as human characteristics, just as it accepts reasonableness cooperation and energetic activity The former are challenges, the latter assets

e Supervision will substitute leadership for authority Authority will be recognized as the authority of the situation and of the facts within the situation Personal authority if necessary will be derived from group planning

6 Good supervision will employ scientific methods and attitudes in so far as those methods and attitudes are applicable to the dynamic social processes of education will utilize and adapt to specific situations scientific findings concerning the learner his learning processes the nature and development of personality will cooperate occasionally in pure research

7 Good supervision in situations where the precise controlled methods of science are not applicable will employ processes of dynamic logic in studying improving and evaluating its products and processes Supervision either by scientific methods or through orderly thought processes will constantly derive and use data and conclusions which are more objective more precise more sufficient more impartial more expertly secured and more systematically organized than are the data and conclusions of uncontrolled opinion

8 Good supervision will be creative and not prescriptive

a Supervision will determine procedures in the light of the needs of each supervisory teaching learning situation

b Supervision will provide opportunity for the exercise of originality and for the development of unique contributions of creative self expression will seek latent talent

c Supervision will deliberately shape and manipulate the environment

9 Good supervision proceeds by means of an orderly cooperatively planned and executed series of activities (See Chapter IV for detailed sub principles and processes)

10 Good supervision will be judged by the results it secures

11 Good supervision is becoming professional That is it is increasingly seeking to evaluate its personnel procedures, and results it is moving toward standards and toward self supervision

Principles Governing the Purposes of Supervision

1 The ultimate purpose of supervision is the promotion of pupil growth and hence eventually the improvement of society

2 A second general purpose of supervision is cooperatively to formulate and carry out an educational policy and plan designed to achieve the ultimate goal

3 A third general purpose of supervision is to supply leadership in securing continuity and constant readaptation in the educational program over a period of years, from level to level within the system, and from one area of learning experience and content to another

4 The immediate purpose of supervision is cooperatively to develop favorable settings for teaching and learning

a Supervision, through all means available will seek improved methods of teaching and learning

b Supervision will create a physical social and psychological climate or environment favorable to learning

c Supervision will coordinate and integrate all educational efforts and materials, will give continuity

d Supervision will provide ample, natural opportunities for growth by all concerned in the correction and prevention of teaching difficulties, and for growth in the assumption of new responsibilities

e Supervision will enlist the cooperation of all staff members in serving their own needs and those of the situation

f Supervision will aid, inspire, lead, and develop that security which liberates the creative spirit

Levels of supervisory principle and operation The chapter has developed, it is hoped, acceptable principles of supervision Wide variation in understanding, in acceptance, and in operation of these principles is observable in the field The range is from genuine democracy to genuine autocracy The chart on pages 66 67 presents an outline of levels which may contribute to better understanding, and which should enable students and field workers to identify the levels upon which they now operate or are forced to operate Scrutiny of the chart and identification of local practice may aid in raising levels of practice

Discussion Questions for Quick General Introduction

1 State any new ideas derived from the chapter any old ones extended or clarified

2 State any ideas previously held to be sound which now seem to be contradicted or exploded

3 Give two or three major summary statements derived from the chapter

Discussion Questions Calling for More Extended Analysis

1 State in everyday common-sense language why the nature of the basic principles underlying any activity is of such great importance

2 State in your own words why principles are superior to techniques as guides to practice Use the materials in the book but go beyond them if possible Demonstrate understanding by translating into words unmistakably your own Specific illustrations from your experience are desirable here

3 Why is the 'prescription of specific practices very often a form of quackery? Again illustrations as well as reasons are desirable

4 Give specific illustrations from experience or observation of the rise of democratic administration or supervision The instances may be major or minor

5 Give specific illustrations, preferably from your own experience or observation, of the detrimental type of *scientific supervision*, of *democracy in supervision*

Exercises and Reports

1 Examine critically the summary of principles given in Section 3 of this chapter

a If there are any items omitted which you think should be included, mention them and present arguments Be sure you actually have a separate and new point, and not one already legitimately subsumed under one of the present headings

LEVELS OF SUPERVISION PRINCIPLES AND PROCESSES *

Level	*Social Theory*	*Program of Supervision*	*Methods of Supervision*	*Flexibility of Program*	*Staff Relationships Teacher Supervisors*	*Teacher Freedom in Choice of Materials and Methods*	*Respect for Personality*	*Source of Individual Growth*	*Methods of Individual Growth*
I Free purposeful activity									
A By individuals 1 Leaders experts at work on frontier problems	Democracy leader devotes himself to a problem for common good	Self-supervision eventual contribution to group program	Continuous self initiated attention to needs new discoveries etc science guides	Complete individual ability insight and energy control	General supervisory climate stimulates individual supervisor on consultancy basis	Complete under guidance of science and philosophy	Complete whenever interaction takes place	Individuals own desire for greater professional understanding and skill Urge to creative work	Continuous self directed study, experimentation or creative endeavor
2 Any individual at work studying and striving to improve his own work	Democracy, individual reconstructs his contribution to welfare of the group	(Same as above)	Continuous self survey to locate needs science guides	(Same as above)	(Same as above)	(Same as above)	(Same as above)	(Same as above)	(Same as above)
B Cooperatively within groups	Democracy cooperative group formulation of policy and program	Cooperatively derived from situation and based on needs	Continuous cooperative self-survey of needs, aid on service basis	Complete, needs and problems control	Mutual recognition of worth consultancy relationship stimulation to creative work	Teacher has large freedom of choice in terms of children's needs and problems with due regard to science and philosophy	Complete between persons guided by common science and philosophy	General stimulation of climate of cooperative endeavor Individuals own desire to improve and to contribute Opportunities given for creative work	Continuous cooperative group study of needs of situation of new materials in educational science and philosophy, through experimental and creative processes

II Participation in predetermined plan									
A Liberal policy	Benevolent autocracy leaning toward democracy, voluntary participation in carrying out plan of superiors would be hoped for	Predetermined plan is imposed but suggestions and modifications within it are given a hearing	Participation of all is invited in carrying out plan from central office some freedom for research and creative work but within plan	Some provision for choice of activities	Training guidance relationship dominant some leadership with individual problems, inspection *minimized*	Teacher selects from approved course of study which allows for considerable variation	Partial degree differing with situations	Opportunities few or many, to contribute and to be recognized	Voluntary participation (sometimes required) in study programs suggested and supplied by superiors, some choice a little individual experimentation
B Conservative policy	Paternalism directed and controlled participation *in plan of* superiors	Predetermined plan is imposed minimum only of suggestion and modification received	Teachers assigned to activities and study groups with no or very little consideration of individual needs or interests, a little freedom for research and creative work	A little provision for choice of activities	Inspection and training-guidance are both prominent A little choice permitted in choice of practices	Teacher selects from list of designated methods and *materials*	Recognition of individuals whom those in authority *know best* attractive submission to authority	Individuals acceptance and willingness to develop approved practices	Assigned participation in study programs suggested and supplied by superiors little choice very little or no individual experimentation
III Domination	Autocracy reactionary effort to maintain existing order without change	Predetermined plan often without reference to needs carried out as it stands	Imposition of practices approved by supervisor	None visits and meetings scheduled attendance at conferences required no variations	Inspection and and checking of performance Imposition of practices	Teacher has no choice following procedures laid down in advance	None individual does as he is told, complete submission to external authority	Obedience to orders, fear of losing position	None actually —growth if it can be called such comes through careful study of the demands of superiors

* This chart was developed by the author of this chapter from one originally constructed by Brueckner and which appeared in the first edition of this volume
The seventh column in the chart is not coordinate with the others The topic treated is actually a sub point under the heading for column six, and is inserted for illustrative purposes A complicated chart form would have been necessary to indicate this

b If there are any items with which you cannot agree or which for any reason you think should be left out present your arguments

Written Exercises

1 Prepare a brief, critical well-organized account of the supervisory principles which *actually* operate in the situation where you are now working (or have recently worked) Distinguish clearly if necessary between the principles set forth in bulletins or reports and those which actually operate as judged by the overt procedures used Include printed or mimeographed materials if available Use the chart on pages 66-67 if it is of aid

Indicate in the course of your account wherein the principles both announced and actual if the two do not coincide need to be changed What do you propose to do to bring about changes if you are in a position to do so in the given situation

2 Chapters I and II have presented a new definition of supervision together with an explanation of the cooperative democratic philosophy under which supervision should operate

Make a list of important consequences which should flow from the extension in practice of the modern concept and democratic philosophy The list should refer to basic and fundamental considerations and not to minor techniques or superficial aspects Make at least seven or eight points more if possible (A total of nineteen has been compiled)

This question is highly important because it first tests the student's understanding of the materials to this point and second tests his ability to infer consequences and to foresee results

(Students often make the mistake of including in their answers such statements as Supervision will be more cooperative more democratic more sympathetic' Teachers will participate 'There will result a more friendly spirit and so forth These answers are worthless the points being themselves characteristics of democratic supervision The real question is granted all these and more, what results can one expect? The real answer includes effects upon any and all aspects of education of the personnel and the situation which should result from democratic operation of supervision Instructors sometimes delay this exercise until the close of Chapter III)

Suggested Readings

General Volumes, Yearbooks, Monographs

Department of Supervisors and Directors of Instruction, the *Fifth*, *Sixth*, *Eleventh* and *Fifteenth Yearbooks* Titles and years are given in the bibliography at the end of Chapter I The *Fifteenth Yearbook* particularly Chapters 1 and 2 is of interest here

——— "Leadership in Instruction" (Washington, D C, National Education Association, 1945)

This pamphlet summarizes the principles of leadership

Hollingshead Arthur D, *Guidance in Democratic Living* (New York, D Appleton Century Company, Inc, 1941)

Here is an excellent account of the program in one school covering several years The whole volume is of great value particularly Chapters 2, 3, 4, and 5

DE HUSZAR, George B, *Practical Applications of Democracy* (New York Harper & Brothers, 1945)

A direct and vigorous demand for less talk and more action in applying democracy An unusually valuable reference

KOOPMAN, G Robert, MIEL Alice, and MISNER Paul J *Democracy in School Administration* (New York, D Appleton-Century Company, Inc, 1943)

This whole volume is unusually valuable Chapters 1 2 and 3 are of especial value here

"Major Educational Principles" a report of a committee of the California School Supervisors Association *California Journal of Elementary Education*, Vol 8 (August, 1939) pp 3-12

MOLHLMAN Arthur B, *School Administration* (Boston, Houghton Mifflin Company 1940)

This is a monumental volume covering all phases of administration with an excellent historical and philosophical background Chapter 5 would be of value to advanced students while Chapters 1 4 contain a first class account of general and more remote background

MYERS, Alonzo F KEFFR Louise M, MERRY, Ruth C and FOLLY Frances, *Cooperative Supervision in the Public Schools* (New York Prentice Hall, Inc 1938)

This is an early discussion of cooperative supervision The bulk of the book is really concerned with teaching of special subjects Highly regarded by some and not by others its value lies in simple straightforward non technical discussion The organization is very discursive Chapter 4 is particularly good for beginners

RORER, John A *Principles of Democratic Supervision* (New York, Bureau of Publications Teachers College, Columbia University 1942)

Rorer's work is an exhaustive critical analysis of all writings to date It is the most valuable single reference upon principles of supervision under democracy

Representative Current Articles

ARMSTRONG W E What Teachers Prefer in Supervision," *Educational Method* Vol 15 (February, 1936) pp 270 272

BARR A S 'Some Principles of Good Supervision *The Wisconsin Journal of Education*, Vol 68 (April, 1936) pp 393 394, also in *School Executives Magazine* Vol 55 (January, 1936) pp 180 181

DAVIS Robert A 'The Teaching Problems of 1075 Public School Teachers' *Journal of Experimental Education* Vol 9 (September, 1940), pp 41 60

WHITNEY F L "Trends in Methods of Teacher Improvement, *American School Board Journal*, Vol 93 (December 1936), pp 18 19

III

The Administrative Organization of Supervision

SECTION 1

THE SETTING OF THE PROBLEM

Two bulletins issued by the same school superintendent but dated thirteen years apart portray vividly the significant shift which has taken place in administrative thinking. The two bulletins are addressed to the elementary school principals of the city. Wordings have been changed slightly to avoid identification. The first bulletin begins as follows:

> I present you herewith a revision of the check list for self-survey which I wish you to use often during the year. To be effective the survey must be continuous. Please check yourselves and your schools regularly so as to keep always in your mind the aims toward which we are working.

The bulletin then lists a large number of precise characteristics pertaining to an elementary school building, equipment, and grounds. A detailed check-list of office equipment, for instance, covers nearly two pages. The amount of light per desk, of space per child, the number of dictionaries, the time and number of fire drills, are listed with some dozens of similar items. A personal check-list for the principal himself is included together with some paragraphs descriptive of teaching practices to be observed. The latter lists have a few items leaning toward modern practice, but the bulk of the bulletin deals with mechanics which are to be checked at regular intervals.

The second bulletin begins:

> This bulletin is the result of an effort on the part of the elementary principals of the city to appraise their own school programs. Principals have set up and are seeking answers to such questions as:
>
> How well is the program of our school meeting the challenge of democracy?
>
> What are the social goals of education, how well are we achieving these?
>
> What evidences indicate that we are achieving worthwhile outcomes? What are the valid means of evaluation?
>
> How shall we proceed to develop a curriculum to meet the needs of our specific communities?

What means shall we use to interpret our changing program to the parents and community in general?

What have I done during the year which demonstrates leadership?

What are some valuable techniques through which to approach a new situation?

[Many similar questions were included together with extensive cooperatively compiled bibliographies Results of experience and experiment were given for the benefit of the entire group]

The first bulletin is an administrative directive, issued by a superior officer, to be obeyed by an inferior officer The second bulletin is a cooperatively determined study guide for a continuing democratic attack upon common problems The two documents epitomize the development of thinking upon administrative procedure

Multiple educational services within a system need administrative organization The word *administration* ordinarily brings to mind the machinery of organization Machinery is necessary but it is not the end it must be kept subsidiary to the functions it serves Flexible, adaptable, made-on-the-spot machinery is more valuable than static, predetermined procedure Principles and objectives are more important than the machinery

The basic cause of problems necessitating administrative machinery of some sort is that the school system of the United States offers an ever larger number of services to the children, to the staff, and to community members The trend toward increased service seems destined to continue despite some opposition in a few quarters The emerging social theory of the times supports the trend

A very large number of these highly specialized services influence the setting for learning Even small school systems are making a considerable number of them available Rural schools secure them through the county school office or the state department The divisions or departments in a school system fall usually within two types, those dealing with services, and those dealing with subjects, broad fields, or other major divisions of the curriculum

Service departments usually include a department of statistics, a department of research (sometimes confined to tests and measurements), a department of personnel which selects, assigns, and sometimes evaluates the teaching personnel, a department of textbooks and supplies, a department of buildings and grounds, a curriculum department Curriculum and supervision are often combined in a department of instruction Departments of attendance often include services to children who must work, to delinquents, and to problem cases Larger systems, and many smaller ones include departments of health, of home agencies, of libraries, of corrective physical education for exceptional or defective children, for the blind, for the deaf, for sight saving, for home instruction of shut-ins Clinics which deal with guidance, with diagnosis of learning difficulties, with behavior problems and emotional disturbances are

widely distributed Many other specialized services are found here and there

The subject departments were originally organized in terms of separate subjects, particularly the so called special subjects art, music, physical education, industrial arts, home economics, and the like Later, subject supervision was extended to the academic subjects, reading, arithmetic, language, and to any additions to the curriculum A recent development has been to organize by broad fields rather than by subjects social sciences, physical sciences, fine arts, and so forth The most recent tendency has been to organize the curriculum in terms of still larger divisions such as personal needs, social functions areas of learning experience A large system may have as many as fifty different subjects or areas, but the tendency is clearly toward organization in fewer larger areas

All this means that an ever larger number of persons has come to participate in supervision Superintendents, deputy or assistant superintendents, several kinds of general supervisors any number of special supervisors, all participate in supervision In addition to the great increase in number and kind of typical supervisory officers, the elementary principal and the department head in secondary schools are recognized as having important supervisory duties Cooperating with all these will be school physicians nurses, psychologists, psychiatrists, and many different research workers and clinicians The teachers themselves are now participants in supervision

The already complex problem is further confused by nomenclature for school officers which differs from system to system One study revealed that in approximately 150 different school systems, a given officer may be named by any of twenty one different titles though status and duties are approximately identical That these different titles convey different concepts of status and function to different persons is even more important than that the titles vary

School services need to be coordinated with outside service agencies A large number of vitally important services similar to those offered by the schools are operated by many community agencies In nearly every city of any size there are child-guidance clinics diagnostic clinics, health departments recreation opportunities, all these are operated by juvenile courts, by police departments, by private foundations, by the Y M C A, the Y W C A, the Boy Scouts, and similar organizations Important educational services are offered by museums, libraries, art galleries, zoos, and public parks Schools will find frequent opportunity for cooperation with hospitals, clinics, private nursery services, the humane society, the orphans' or children's homes, private and municipal employment services Many departments of municipal government either offer certain educational services of their own, or willingly cooperate with the schools Prominent here are departments of fire, police, health, safety, traffic, parks, and sometimes public works

The churches, the welfare organizations, the fraternal orders, the service clubs, the labor unions, the employers associations, and many other community organizations need to be coordinated with the schools for common ends The neighborhood clubs, parent-teacher associations, or any type of highly localized community effort will be found important

The depression-born services such as the NYA, CCC, WPA, and various relief agencies, the wartime OPA all served excellent educational ends Several of these will undoubtedly be continued or reinstated in normal times Many state and federal departments have educational materials and services available similar to those of certain municipal departments

A glance at the "organismic chart" in Chapter I and at the several charts appearing later in this chapter will give an overview of the far flung services which must be coordinated for the good of the child and of society Speaking generally, services should not be duplicated between in- and out of-school agencies No one of the various agencies should be in control The coordinating community councils which have been developing rapidly have been eminently successful in solving many problems All agencies including school and parent are represented Pupils have been called in for discussion in many instances with excellent effect The coordinating council will be described later in this chapter

A prominent schoolman [1] some years ago suggested that the in-school and community services might some day be joined in a recognized department of government, the "ministry of children," or "ministry of youth" The many studies of the problems of American youth during the depression and war years indicate that in this area resides one of the serious problems of modern civilization

Lay participation in educational planning and administration necessary and desirable The principles of democracy and the dictates of practical planning necessitate ever wider lay participation in the management of educational affairs Policy and plan are thus kept closer to the needs of the total community Stagnation followed by violent upheaval, followed in turn by uncritical acceptance of "new" practices, or by reactionary return to outmoded practices, is more likely to be avoided

Public participation has been largely confined to supplying funds and to determining policy through the representative school board A modern development has been the publicity campaign designed to advise, inform, and carry the public along with professional developments Lay contribution must eventually go much further to include actual participation in many areas A program of improvement in curriculum and methods of teaching in particular can succeed only as public leaders, publicists and all lay groups concerned with the welfare of childhood and youth are carried along as part of the new program

Public leaders and lay groups can contribute most effectively in surveys of local needs, in discussions of policies and general plans for meeting

[1] Dr Harry Campbell then superintendent of schools, New York City

needs, in determining general financial support, in selecting the professional leader of the school system The lay public plays a less important rôle in the strictly professional or technical problems The school board or other public groups should not be asked to pass upon the implications of research, upon the efficacy of given methods of teaching, upon in-service training programs, and the like The professional leader appointed by the board with his staff, must be responsible to the community for technical decisions and for demonstrating that the technical decisions were based upon adequate bases for demonstrating that a reputable program is being maintained The public participates in technical matters, first, through participatory observation, and second, through legitimate demands for explanation and proof

An important administrative problem arises Coordination of this huge list of services and of persons must be achieved for the greater good of the teaching-learning situation School systems must develop common understandings within the total staff and community Written statements of procedures for recurring routine items may be necessary, channels and machinery for intercommunication and for the sharing of activities need to be set up Two broad general lines of solution have appeared *Traditional administrative procedure* is that the superintendent with or without a central cabinet devises a set of rules, arranges definite machinery, and presents it as the operating procedure to be followed by the staff The usual scheme is that of line and-staff relationship Varying degrees of participation by the staff in setting up the rules and machinery are found but generally the traditional solution is an authoritarian one imposed on the system and based on the legalistic authority of those at the top *A more modern procedure,* discussed in theory for long and now appearing increasingly in actual practice, is the cooperative determination on the spot of policies mechanisms and procedures by all those actually concerned with the problem The modern solution is based on the democratic concept of authority-derived-from the situation, rather than upon the legalistic conception Leadership is substituted for personal authority Details will be elaborated a few pages further on

Ignoring the problem constitutes a serious blunder The whole problem of coordination was sadly neglected during the days when school systems in the United States were expanding with such astonishing rapidity Total neglect rarely appears nowadays, but disregard for inadequate, undemocratic and inefficient solutions is still too widely present Certain serious difficulties and evils appear if no organization is set up, or if a poor one, either traditional or modern, is accepted

First, friction developing into clash and antagonism may and usually does result *Second,* there is often great waste from duplication (not sharing) of activities, even if no friction appears *Third,* many important services or activities may be wholly neglected since no one knows who is to perform them This may be true in situations where all have the co-

operative attitude and are willing to work together There is no procedure for cooperative sharing of activity

The first chapter made clear that the great majority of supervisory duties are performed with almost equal frequency in some cases by as many as three school officers The investigations quoted showed also that many supervisory functions deemed important by all concerned were not being performed by a majority of supervisory officers, that a number of duties judged to be of minor importance were being widely performed Common understandings and procedures are necessary whether imposed from above or cooperatively formulated

The *Sixth Yearbook* of the Department of Supervisors and Directors of Instruction - presented as long ago as 1933 an extensive summary of typical difficulties reported from actual situations The conflicts all indicate clearly the absence of any organization either traditional or modern The following exhibit is only a fragment but clearly indicates the difficulty

CLASSIFICATION OF REPORTED CONFLICTS

1 Channels of Authority
   a Differences between the beliefs of the superintendent and the general supervisor
      Superintendent believes supervisor should make suggestions to teachers through the principal only while supervisor believes she should work directly with teachers or vice versa
   b Differences in the beliefs of the superintendent and the special supervisors (supervisors of subjects like music and art)
      Superintendent believes the special supervisor should work under the direction of principals while special supervisor believes she should work directly with teachers or vice versa
2 Responsibility for Curriculum Making
   a Differences between the beliefs of the superintendent and the general supervisor
      Superintendent believes in giving teachers much latitude in method and curriculum while supervisor believes in holding teachers to conformity in these matters or vice versa
   b Differences between the beliefs of general supervisors and teachers
      Supervisor does not believe teacher should participate in curriculum construction while teacher believes she should participate or vice versa
3 Amount of Freedom Permitted
   a Differences between the beliefs of the superintendent and the principals
      Superintendent believes teachers should conform to certain methods while principals believe in encouraging originality in methods of teaching or vice versa
   b Differences in the beliefs of the superintendent and the special supervisors

[2] *Effective Instructional Leadership Sixth Yearbook* of the Department of Supervisors and Directors of Instruction (Washington D C National Education Association 1933) pp 32 36

Superintendent believes originality in methods of teaching should be permitted while supervisor believes teachers should conform to a particular method or vice versa

4 Objectives in Education

a Differences between the beliefs of the superintendent and the general supervisor

Superintendent believes in a traditional type of school, while supervisor believes in a child centered type of school or vice versa

b Differences in the beliefs of the superintendent and the special supervisor

Superintendent believes appreciation and enjoyment in music for example are the most important objectives while supervisor believes ability in performance is most important or vice versa

5 Methods of Instruction

a Differences between the beliefs of general supervisors and teachers

Supervisor believes in one method and teacher believes in another

b Differences between beliefs of special supervisors and teachers

Supervisor believes in one method and teacher believes in another

6 Standards of Promotion

a Differences between the beliefs of the superintendent and the principals

Superintendent believes in maintaining definite promotion standards while principals believe such standards should be flexible or vice versa

b Differences between the beliefs of principals and teachers

Principal believes in maintaining rigid promotion standards while teacher believes such standards should be flexible or vice versa

The language in this exhibit is chiefly that of the traditional set up but the problems will arise in any case if organization is faulty The solution of each of the problems cited and of the many others omitted is clearly one of common understanding and procedure

Supervisory officers and principals will inevitably proceed at cross purposes in any situation where system is absent We are all familiar with the autocratic principal who says, 'No supervisor is going to come into my building and tell my teachers (or me) what to do' The supervisor in turn often says 'These old principals are merely glorified clerks (or they have crystallized on the job), and I never bother to tell them anything' A serious misconception is indicated concerning the whole nature of education, of cooperation, of sharing functions, not to mention the absence of common understanding Groups of principals and supervisors committed to traditional concepts of operation in the classroom will quarrel with groups of principals and supervisors who are committed to modern procedures

The problem may be solved with reasonable ease if attacked seriously Writers on administrative theory and administrators in the field are now well agreed that solution of the problem is not unduly difficult A very few still seem to believe that because we are dealing with a very complex system, with personalities, and with intricate human relationships, that solution is either impossible, or at best inadequate and unsatisfactory

There exist, on the contrary, quite definite principles of administration in general, and of human affairs in particular The principles governing cooperation and shared activity are reasonably clear They are known to sincere students of the problem and are widely used in human affairs The problem is, most emphatically, not a muddle or hodge-podge It does *not* have *to* be left *to* luck, to Providence, or to the pious hope that everyone will be suffused with sweetness and light causing them to cooperate without argument and without adequate knowledge of how to cooperate

We will now take up in turn and in some detail the two general lines of solution previously mentioned traditional organization based on legalistic authority, and the modern one based upon leadership and authority derived from the situation

SECTION 2

ORGANIZATION BASED UPON AUTHORITY

The writer wishes to make clear that in presenting a detailed summary of authoritarian organizations, together with the arguments for such organization, he is not advocating such methods The authoritarian structures are still the most widely used in the country and will continue for a long time Honest presentation of them with discussion of strengths and of methods for alleviating the weaknesses will be valuable to many persons for a long time to come The modern procedures presented in Section 3, based upon leadership instead of authority and formulated cooperatively by all concerned are definitely superior, first in their fidelity to democratic principles, and second in that they can be fully as efficient as the older procedures

The principles underlying authoritarian organization General principles of administration of traditional type are set forth in considerable detail in texts on administration We may boil the various statements down to a few basic essentials

1 Authority is centralized in the legally appointed person at the head
   - *a* The superintendent of schools is, in the last analysis responsible for the general instructional policy of the school system
   - *b* The principal must be the executive in chief with supreme responsibility in his school and must be directly responsible to the superintendent

2 Authority and responsibility may be delegated by the superintendent to inferior officers

3 The lines and channels through which this delegated authority will flow must be sharply and unambiguously defined
   - *a* Provision must be made that each individual or area in the organization may be reached expeditiously from any higher administrative level
   - *b* Provision must be made for appeal from any individual or level to higher administrative levels

c No individual should receive suggestions covering the same item from more than one person (Teachers should get all assignments, notices, directions from the principal)

4 Duties and activities must be assigned down through the line of authority

5 The performance of duties assigned to any level will be checked by the next higher levels throughout the system

6 Staff officers are instructional experts and consultants, they are differentiated thus from the line officers and also through having no authority or executive power

a A principal or department head is both an administrative and a supervisory officer

b The principal in this joint relationship may render his most effective service through direct assistance visiting and conferring with individual teachers helping with individual pupils, making immediate suggestions, helping with lesson plans, devices, units discussing devices

c The supervisor in this joint relationship may render his most effective service through indirect and more remote assistance making or taking leadership in making courses of study providing materials creating standards training principals or large groups of teachers (Research studies based on functioning within traditional systems clearly support this *general* division)

d The bulk of everyday classroom visiting may be taken over by the principal, the supervisor's visits may be placed on call in the main

These principles are practically self explanatory and will be familiar to advanced students and workers in the field therefore detailed discussion is omitted

In his excellent critical analysis of supervisory principles, distinction is made by Rorer[8] between external and internal organization The former deals with the machinery and personnel of supervision, the latter, with the functioning of the machinery The principles just stated above are those of external organization, the provision of persons and machinery *Principles of internal organization or functioning will be set forth* a few pages further on when the need for them has been developed

Types of traditional or authoritarian organization Several different schemes for organizing supervision administratively are found in the United States The first one cited below is not sound even under traditional authoritarian principles Many variations are found of schemes which are acceptable under traditional principles The variation is sound and desirable showing that even under the rigid principles of authority there is effort to experiment, to adjust to local conditions and personnel

The extrinsic-dualistic organization The term was coined long ago by Barr Supervision is "extrinsic" to the supposedly basic educational organization, which results in a "dualistic" conception of administration and supervision Each proceeds with little or no attention to the other The reasons for this appeared in the first chapter Supervision was sup-

[8] John A Rorer, *Principles of Democratic Supervision* (New York, Bureau of Publications Teachers College Columbia University, 1942), pp 124 250

plementary, adventitious, extrinsic Teachers were responsible to both administration and supervision Mechanisms for cooperation were not even thought of This type was at one time almost universal and still is the actual operating scheme in too many places despite surface efforts to develop either a reputable authoritarian scheme or a modern democratic one The illogical and incompetent nature of this scheme is apparent There is no centralization of authority, no definition of lines, no mechanisms for cooperation, let alone any modern method for cooperative formulation of procedures

The line-and-staff organization, general theory This type of organization is found in nearly pure form in the army and is probably more easily understood through reference to the army Line officers are those in authority They issue orders Authority descends along regularly defined "lines from the general to the brigadier-general, to the colonels, to the majors, to the captains, to the lieutenants, to the sergeants, to the corporals One line officer may be approached only through "regular channels," that is, by proceeding up or down along the defined lines of authority Staff officers are specialized experts who are masters of technical services They have no authority and issue no orders though they may have the rank of colonel major, captain, and so forth They supply advice, information, technical assistance to line officers Generals issue orders for battle but they do not do so without careful consideration of the advice and information turned in by staff officers in charge of espionage service of supply, munitions, repairs, weather information, and so forth

The line-and-staff scheme is found elsewhere than in the army It appears in the church in department stores in publishing houses, in manufacturing concerns in charitable and non profit enterprises in purely eleemosynary institutions, in fact, wherever the activities of butcher baker or candlestick maker are extensive enough to necessitate organization Line and staff can be found in the spontaneously and democratically organized gangs of boyhood, will often appear in an elementary classroom where pupils are organizing their own learning activities

Objection is often made to line-and staff because it is found in the army and in industry This is not wholly sound argument, the real objection lies elsewhere Line-and staff organization is merely a mechanism to facilitate human cooperation in complex undertakings The crucial question is whether it must be operated in military fashion or with the rigid inflexibility of an industrial organization The fact that it appears in simple situations spontaneously and can be formulated cooperatively shows that some democracy is possible and that authoritarian imposition can be avoided in some degree Large organizations can reduce but not eliminate the evils of rigidity by (1) placing an officer as coordinator for all line-and-staff activities (2) keeping all lines of action free and loose instead of rigidly dictated, and (3) providing certain

specific mechanisms (see later pages) for flexibility and cooperative interaction

The line-and-staff organization applied to school systems The application of line-and-staff to educational organization raises a second crucial question, that of ends The army and manufacturing plants deal with products which not only can but should be precisely standardized in large part Persons involved are definitely subordinate to the desired ends and to the processes for securing the ends Doing and doing correctly by formula is the desired thing Education deals with the development of unique personalities and with the enhancement of an emergent experimental civilization The staff operating the educational system is, moreover made up of persons who are to find growth and satisfaction in their work The products and the processes not only should not be standardized but can be standardized only with dire results Organization in education must provide for doing as it does in business, but in addition must provide for creative thinking and individual contribution The modern cooperative form of organization is sounder in theory and practice but in situations where the authoritarian form prevails it is necessary to provide principles and processes which alleviate, counteract, or correct the undemocratic aspects These principles of internal organization seem to be

1 Facility for cooperation and coordination must be provided
   a A common theory of education a common technology a common aim and philosophy must be established
   b The work of the line officers and that of the staff officers must be coordinated through common planning under a deputy superintendent or some form of supervisory council
   c Below the level of general coordination there must be many interlocking committees, conference groups and small subcommittees
   d Cases of conflict or disagreement between any officers or groups must be settled by the next higher administrative officer, ultimately by the superintendent
2 There must be flexibility of operation
   a Adjustment of strictly logical lines and duties must be made when local circumstances demand it (type of community size of system traditions, previous policies, the training experience, and personalities of the personnel already there, and so forth)
   b Line officers will have to perform duties in some instances which are ordinarily assigned to staff officers
   c Staff officers will have to perform duties in some instances which are ordinarily assigned to line officers

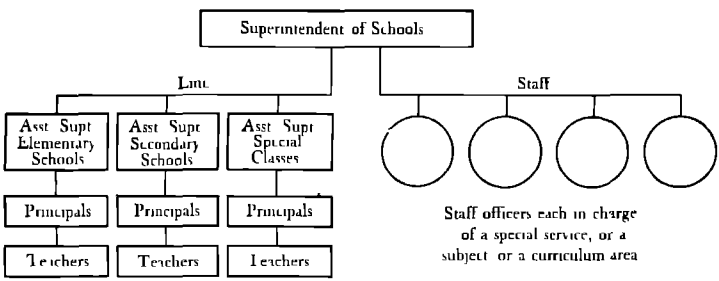
These principles counteract in some measure, but never wholly, the inherently undemocratic nature of authoritarian organization

The line officers in a school system include the superintendent, assistant or deputy superintendents district or divisional superintendents principals, vice principals department heads, and any specially appointed committee chairmen or other officer given authority from the head of the system Authority is delegated down defined lines from the super-

intendent The line officers systematically operate the school program Staff officers supply expert technical information and advice to the line officers

Staff officers are of two types, those in charge of service departments and those in charge of subject departments or other major divisions of the curriculum The first includes statisticians, psychiatrists, psychologists, librarians, test experts, guidance officers, personnel officers of various types Service divisions ordinarily serve the entire system The curriculum divisions may, however, take any one of three forms Many variations are found in practice Three common systems are

1 Line and staff with vertical supervision of instruction
2 Line and staff with horizontal or divisional supervision of instruction
3 Coordinate line and-staff which usually follows the horizontal or divisional plan



A SCHEMATIC REPRESENTATION OF LINE-AND-STAFF ORGANIZATION

From *The Superintendent Surveys Supervision, Eighth Yearbook* of the Department of Superintendence (Washington D C National Education Association 1930) p 55

Supervisors under *vertical* organization are advisers on instructional conditions in a given subject or curriculum area throughout all grades from primary to the end of secondary school Under *horizontal* organization they work only in given school divisions such as primary, upper elementary, secondary Vertical supervision is strong in securing unity, coordination, integration, and articulation of materials and methods within each field It is weak in that it tends to keep subjects or areas separate and provides less well for correlation between subjects or areas, and sometimes fails to secure integration of subjects or areas under the objectives of the school Horizontal supervision is strong in securing unity and integration between subjects or areas within the limits of divisional levels Its weakness lies in the possible failure to articulate between levels Choice depends upon the training and attitudes of the given staff and upon local traditions

The coordinate plan, the third system mentioned above, is really a variation of the second, the added feature being an emphasis upon the

coordinate nature of the activities of line-and staff officers This is an effort to avoid certain weaknesses of conventional line-and-staff organization

The strength of conventional line-and-staff organization is that it does provide clear and unambiguous assignment of duties and encourages specialization The weaknesses grow out of the strengths Cooperation between line and staff may actually be seriously impaired by too careful differentiation and overspecialization Partial correction lies as indicated earlier, in the formation of supervisory councils, interlocking committees, conference groups

The coordinate system is itself an extended effort to overcome weaknesses of conventional line-and staff The defined differences between line and staff are softened by stating that the activities of line-and staff officers are coordinate functions in any given educational program

Staff officers in conventional line-and staff serve all principals and teachers alike and from the central office Coordination takes place through the primary administrative staff or council and for the system as a whole Staff officers under the coordinate system serve given divisions such as kindergarten, primary intermediate, junior high, senior high, and so forth Coordination takes place more directly through divisional and local officers System wide coordination is still necessary, of course

In the coordinate system the building principal engaged in unit supervision is held to [illegible] at the same organic level as the special supervisor, a staff officer engaged in supervision of a subject or area of learning experience Each is assigned coordinate administrative responsibility the principal over a group of teachers and pupils, the supervisor over a group of assistants Each is assumed to be equally interested in the improvement of the situation, hence will engage naturally in cooperative endeavor, each carrying out his specially allocated functions under direction of the divisional administrative staff

The strength of the coordinate form is that it emphasizes and encourages cooperation and integration so far as these can be achieved under an authoritarian and defined system The weakness is that it may reinstate some of the overlap we are trying to avoid and may minimize specialization The correction of these weaknesses lies in more careful allocation of duties and in formation of interlocking committees

The effort to overcome weaknesses in either system points surely toward the evolution of more democratic organizations to which we will turn in Section 9

Variations in supervisory organization found in small cities The larger cities usually have some form of line and-staff organization in more or less accurate detail Such systems have large staffs which permit greater specialization Since the individual buildings are larger, the principalship is enhanced

In the smaller cities there is less money, hence a smaller staff Since

the buildings are smaller, the principal is usually a part-time or full-time teacher. All of this places severe limitations on the smaller systems whose need of supervision, of curriculum reorganization, and so forth, is usually great. Furthermore, the superintendent, either because he is overworked or untrained, very often fails to recognize the importance of organization. He often does not take advantage of such facilities as he has.

The chief devices utilized in small systems are as follows:

1. One general supervisor is sometimes employed to give attention to the so-called regular or academic subjects. This is, of course, extremely helpful when a competent person is secured. The weakness of the plan is that this general supervisor must be a generalist as the superintendent and principal already are. Sometimes one or two special supervisors are employed to supplement the efforts of the general supervisor.
2. Instructional committees may be organized involving some or all of the entire staff. These committees may give attention to organizing courses or to selecting textbooks or to the interpretation of new movements or to devices for improving instruction.
3. One or more, usually two or three, special supervisors are employed. General supervision is done by the superintendent or by the principal or by specially designated supervising teachers. This is helpful when competent specialists are found. The weakness is that they may be merely special teachers.

   The *Eighth Yearbook* of the Department of Superintendence cites the following advantages of the supervising teacher system:[4]

   a In cities of a sufficient size special supervision is thus made possible for all subjects, art, music, civics, arithmetic, reading, physical education, and the rest, at a minimum cost. The need for special supervision for all subjects has already been set forth.

   b The plan assures a fund of practical ideas, plans, and materials for use in the school system. That is, such plans, procedures, and materials as are recommended are first tried out under actual classroom conditions. They represent workable ideas rather than theories.

   c The specialist is kept in close touch with actual classroom conditions. Critic teachers in teacher-training institutions almost without exception have found it necessary to teach one or two classes daily to retain a sympathetic understanding of the problems of actual teaching.

   d Such a plan avoids the embarrassment of an unattached group of specialists.
4. Building principals are given responsibility for special supervision. The principal of one building may be designated as a special supervisor of arithmetic in all buildings. His relationship to the other principals when in their buildings will be that of a special supervisor. Another principal will be responsible for language activities, another for the social studies, and so forth. This involves adjustment of load and clerical help.

Application of principles to rural supervision, to supervision by state departments of education. The principles developed in the first three chapters are applicable to all types of school, though details of procedure may differ considerably. Illustrations have been drawn chiefly from small

[4] *The Superintendent Supervises Supervision, Eighth Yearbook* of the Department of Superintendence (Washington, D.C.: National Education Association, 1930), p. 61.

town, village, and large city systems Excellent supplementary materials are available for those more specifically interested in rural supervision and in leadership by state departments

A book by Anderson and Simpson, *The Supervision of Rural Schools*,[5] is still valuable for rural supervisors Current material will be found in the periodical literature and in state bulletins on given programs of rural supervision

An alert and professionally minded state department can be of inestimable aid to all rural, county, town, and city systems through advice on the solution of problems critical analyses of procedures and reports, through aiding in evaluation, through bulletins, and through many other aids Two excellent summaries are available Alexander's *State Leadership in Improving Instruction*[6] analyzes three different types of state leadership, namely, directive indirect, and cooperative A large but somewhat too inclusive bibliography to date is included A bulletin by Cook, 'Supervision as a Function of State Departments of Education'[7] contains extensive summaries of practice and comment The bulletins constantly being published by state departments particularly those on curriculum programs constitute a continuing source of information

SECTION 3

ORGANIZATION BASED UPON DEMOCRATIC PRINCIPLES AND UPON RECOGNITION OF THE CHIEF AIM OF THE SCHOOL

Increasing recognition of inescapable weakness in line-and-staff has increased dissatisfaction with it A number of important weaknesses in the line and staff organization have been noted in educational writing for a long time The efforts of field workers to improve the system or to

Charles J Anderson and I J Simpson *Supervision of Rural Schools* (New York D Appleton Century Company Inc 1932) Additional references are

Meredith W Darlington *A Teacher's Handbook for Self Appraisal of a Rural Elementary School* (Lincoln Neb Teachers College and Extension Division Experimental Edition 1940) Developed by a group of rural teachers and county superintendents with Professor Darlington Excellent for rural supervisors

——— and Rose A Skudlet *In Service Education of Elementary Teachers* (Lincoln Neb D S Wynne Co 1944) Specific and detailed listing of points Valuable for city as well as rural supervision

Genevieve Bowen *Living and Learning in a Rural School* (New York The Macmillan Company 1944) A diary type running account of teaching in a given rural school Valuable for teachers and supervisors

Kate V Wolford *Teaching in Small Schools* (New York, The Macmillan Company 1946) Written for teachers but is one of the most valuable books in print for rural supervisors Modern up to date point of view throughout

[6] William M Alexander, *State Leadership in Improving Instruction*, Contributions to Education No 820 (New York Bureau of Publication Teachers College, Columbia University 1940)

[7] K M Cook Supervision of Instruction as a Function of State Departments of Education Bulletin 1940 No 6, Monograph No 7 (Washington D C United States Office of Education, 1940)

evolve a better basic structure indicate that the practical workers are at one with the theorists in recognizing the difficulties Several of these points are indicated in the very presentation of the system itself in immediately preceding pages, several were clearly indicated in the first edition of this text Writers of texts on administration have been for some time and with increasing vigor voicing fundamental criticisms The principles of democratic supervision set forth in Chapter II contain still other inferential attacks upon line-and staff organization

We have already noted *first,* that administrative and supervisory functions cannot actually be separated, *second,* we believe as the result of evidence that the imposition of authority will not accomplish as much or as well as the exercise of leadership *third,* truly democratic cooperation is likely to be more efficient in the long run than contact through strictly defined channels, and *fourth,* machinery and rules made on the spot, by those most intimately concerned and who will have to operate within the given situation, are superior to rules and machinery made by a central staff further removed from the learning situation which the machinery is to serve

The fourth point has an extremely important corollary which constitutes a *fifth* difficulty Machinery and procedures set up to facilitate human affairs in any area are always in danger of becoming ends in themselves The logical arrangement and smooth running "efficiency" of the system become more important than the ends served This lapse into formalism is greatly encouraged if the system was set up in the first place by persons remote from the scene of action This type of formalism in school systems was doubtless enhanced by the concept of efficiency' borrowed from the business world The failure to stress the difference in desired outcomes between business and education noted earlier, is unquestionably concerned here also A product that can and should be standardized is produced better by machinery and processes that are also standardized All educational machinery is ostensibly set up for the purpose of furthering the desired outcomes of education the production of unique individual socialized personalities through securing growth and development within a social group of the individually different children, the ultimate improvement of society

The machinery and its smooth operation may become the end if we are not careful, recognition of the true ends to be served may become purely verbal The system comes to function for its own good, not that of the learner

Line-and-staff may be inoperable in a truly modern system of education Certain leaders are expressing the belief that it may be actually impossible to organize a good school system under traditional line-and-staff Arguments are derived from an examination of (1) the type of educational theory and practice within which line-and-staff

emerged, and (2) the implications of the new services added to school systems in comparatively recent times

Line-and staff organization was set up to organize a school system which accepted principles and practices concerning learning, the curriculum, the management of the classroom, the desired outcomes, and testing practices which are now largely passing out of the picture Many of the new services added in recent years were designed not to serve the old subject centered educational system but to serve the needs of the pupils The new services indicate clearly that educational thinking is concerned increasingly, not with subject-matter outcomes, not with formal skill or fact learning, not with objective testing of limited results, not with uniformity in classroom procedure, but with the life and learning of the individual pupils

The problems just indicated have been presented in such clear and incisive language by Spears that a lengthy quotation is justified [8]

The line and staff matrix came in when the curriculum was considered as something fixed when it was looked upon as little more than a number of subjects and skills to be manipulated under well regulated classroom conditions when the theory of mental discipline still clung to its exalted pedestal when psychologists were still flirting with the mind body theory when the out-of-class activities of youngsters were tolerated rather than encouraged when efficiency in school operation took precedence over respect for personality when the school was an institution operated apart from the rest of the community and when supervision centered its attention upon teacher weakness rather than upon curriculum improvement

Even if [we] were to concede that the line and staff pattern of operation served in a fair way to unify instructional leadership a few years ago it could not automatically be concluded that the pattern would fit today's situation In recent years general curriculum practitioners, guidance leaders research workers and similar directors have been added to the original headquarters staff of special subject supervisors This new crop of workers represents the growing concern for the individual pupil, and has little in common with special subjects or special fields as such As these newer instructional leaders were added the administration again got out the old line-and staff principle dusted it off and bent it here and there to fit the new situation But fundamental differences between the new situation and the school situation existing at the time of the principle's origin has been ignored

The recent deluge of new staff officers represents a unique situation Whether the average school system actually appreciates it or not, behind this recent creation of the positions of curriculum director, research director, instructional coordinator guidance director, and all their associates rests a general dissatisfaction with the existing school program The inception of these positions represents something much more revolutionary than did the inception of special subject supervisors Special subject supervisors were brought in to strengthen an existing order not to change it The task of changing the curriculum and moving the emphasis of the school program from subject to child

[8] Harold Spears "Can the Line and Staff Principle Unify Instructional Leadership?" *Educational Method*, Vol 20 (April, 1941), pp 343 349

is a Herculean endeavor that, if it is to be successful, is bound to call for a few revolutions that even a rigid statement of rights and duties cannot and should not offset If it can be said that the creation of a curriculum department or the appointment of a curriculum director represents a definite dissatisfaction with the existing school program it might be asked if it doesn't follow that it likewise represents dissatisfaction with instructional leadership that already exists in the system It is quite likely that some of these appointments have behind them nothing more sincere than the desire to keep up with the Joneses but in the main they indicate that philosophies of education are at stake and the resulting situation calls for something more than a principle of staff organization to reconcile it In fact isn't friction in instructional leadership at times the first sign of possible advancement in instructional procedure? The school system that has done so much by law and precept to keep down instructional differences may have been better off had it encouraged conflict thus forcing antiquated purposes and practices into a death struggle with modern points of view Actually antiquated procedures are being sheltered by a line and staff principle that has vested their proponents with power

As long as the activities of these new staff officers are limited to teacher discussions, committee meetings the formulation of instructional objectives and petty tinkering with existing courses no conflict arises But as soon as proposals are made that would transpose from mere conference room talk to actual classroom practice such phrases as pupil purposes the development of the whole child and learning to do by doing a strain is placed upon instructional leadership that is apt to crack the unity that was verbally attested to in the conference room

The reorganization of the school program demands not only unity of statement on the part of the leadership but asks above all unity of purpose and effort

Efforts to improve line-and staff constitute one route to understanding of democratic organizations Modern administrative organizations and processes have a sound theoretical basis of their own, they are not merely improvements of older mechanisms They are basically different from the older procedures Efforts to improve the old however, if persisted in with sincerity lead to study of aims and principles which in turn leads the student into the new He does not go there under compulsion but through following out his own needs and through study of his own initiative [1]

[1] The present writer has found that one of the most effective methods of leading experienced teachers who are suspicious of modern or progressive education is to encourage them to improve their own present methods Every assistance is given to improve methods which the teacher has used and approves Honest effort to discover why certain methods are used and to discover the basis for the improvements lends astonishing number of convinced traditionalists into acceptance and competent use of basically different methods Greater success attends this procedure than attends the effort to secure intellectual comprehension of the principles first divorced from the teacher's practice The method has been used in a number of workshops and in a curriculum reorganization problem in one of the most conservative New

Spears [10] in preparing for his report queried the officers of forty school systems and found practically all to be operating under line-and staff Many of the officials, however, were making great effort to devise improvements within the line and staff organization which would secure greater unity of understanding and effort The list constitutes an enlightening exhibit, and as Spears says, "many of these attempts go beyond the mere rededication to the line and-staff principle"

1 Regular meetings of directors supervisors and principals to discuss policy
2 Regular meetings of directors, supervisors principals and teachers to discuss policy
3 The creation of a school policies council made up of representatives of line, staff, and teaching groups
4 Changing the title of director of elementary education to *coordinator* of elementary education to promote unity of action among supervisors and principals
5 Changing the title of supervisor to *consultant*
6 The creation of a curriculum council, representing the supervisors, directors and principals
7 The creation of a council of teachers and administrators to establish instructional policy
8 The retention of the usual line and staff relationship of supervisor and principal with the centralization of instructional authority in one position in the central office
9 The elimination of special subject supervisors and the substitution of all supervision by area both vertical and horizontal that is supervisors of primary elementary junior high and senior high areas
10 The careful manipulation of supervisors from the central office so that no two are in a building at the same time thus enabling the principal and supervisor to visit together
11 The careful designation in the central office of days of the week or month to be used for meetings of particular groups thus avoiding conflicts and protesting time of teachers, directors and administrators
12 Curriculum building by subject areas in area including representation from kindergarten through the senior high school
13 Maintenance of the authority of building principal in all cases except those dealing with curriculum planning in which instance the desires of the special supervisory officers take precedence
14 For the purpose of guiding instructional leadership and practice the development of a sound educational philosophy by the entire school family administrators teachers and pupils—a philosophy which all will understand and attempt to practice

Several of these points clearly indicate that strict line-and-staff is being deserted whether consciously or not We may now turn to principles and organizations which are radically different from the conventional systems

The principles underlying democratic organization The principles here stated are simply the general principles of democratic supervision

England states Spears has shown the same thing in his exhibit concerning administrative organization

[10] *Ibid* p 918

set forth in Chapter II and now applied directly to the specific problem of administrative organization The exposition in Chapter II will be supplemented here briefly

1 Authority resides in the situation in its demands and needs, and in its resources
2 Authority is derived by persons from the situation and is shared by all who participated in the study and planning for the situation and its solution
3 Personal or legalistic authority is replaced by responsibility for educational leadership Educational leadership is centered in the superintendent or any other person in a position ordinarily designated as that of leader such as a principal or department head, and so forth
4 Educational leadership and responsibility however are shared by all school officials from school boards to teachers They are shared by pupils and by community members Any person may suggest a problem may exercise leadership in developing it and may be asked to assume formal leadership by the group
5 Leadership is exercised by securing the full participation of all concerned, not merely in carrying out a policy set up by the leader but in the very formulation of that policy in the first place in planning its execution in carrying it out and in evaluating it
6 The new concepts of authority and responsibility are made operable through group determined rules mechanisms and procedures (A group setting up its own machinery will naturally distinguish between routine mechanics which are performed over and over again and the formulation and carrying out of important educational or instructional policies The first can be standardized somewhat along the lines of traditional line and staff but note that the entire attitude and point of view will be wholly different when these things are cooperatively formulated by the group and not imposed from above)
7 Responsibilities and duties of all administrative and supervisory officers are shared with one another and with all other members who of necessity perform duties which interrelate and overlap
8 The democratic formulation of plans will allow widely for assumption of responsibility for getting things done for exercising initiative, and for self evaluation Any and all persons may assume responsibility exercise initiative and perform functions within a framework which has been previously set up by the group itself

The foregoing eight principles govern external organization, that is, the provision of machinery and personnel The following three are principles of internal organization, that is, governing the operation of the machinery

1 Supervision should be so organized that the fullest participation of all concerned, administrators supervisors, principals teachers any other educational workers pupils parents other community members is secured in all aspects of carrying on educational programs This means
   a All programs of activity will be organized around problems of direct concern to those participating and arising out of their own on going activity
   b Councils committees subcommittees conference groups and individual effort will be organized as needed and to serve definite purposes (See next principles for relation of this to continuity and flexibility)

c Channels of communication will be free and easy in operation, open to access by all at any time School officers will receive suggestions from anyone at any time, will be ready with assistance to anyone at any time, will be approachable and adaptable to individual differences in colleagues

2 Supervisory organization must be flexible enough to adapt itself to the needs of each particular supervisory teaching learning situation as it arises, must provide for continuity within this flexible adaptation and readaptation

a Continuity will be provided through the cooperatively formulated minimum of rules, of standing and central committees which care for routine administration and which can act in serious emergencies

b The councils committees, conference groups, and individual study noted in the previous principle is serving wide participation also serve flexibility particularly as they are disbanded to be replaced by new ones for new problems, as they are reorganized and readapted is membership changes

c Flexibility like participation depends upon the democratic conscience the willing acceptance of obligations and responsibilities

d Flexibility like participation is aided through simplicity of machinery

3 Supervisory organization must provide for coordination and integration of educational outcomes Modern supervision will not confine itself to subject divisions will not compartmentalize its service by grades It will operate over large centers of interest and areas of experience bridge gaps between school levels and so forth

The principles are, as stated earlier applications of general principles which were expounded in Chapter II Discussion at this point will therefore be sharply curtailed and in summary form

Authority derived from the situation We may recall from the earlier discussion that authority is derived from the situation We derive and define it by asking (1) What do the needs and demands of the situation authorize us to do? (2) What do the resources of the situation in material and in personnel authorize and permit us to do? (3) What do the known facts of educational science applicable to the situation and the accepted principles of philosophy within the group authorize us to do?

The replacement of centralized legalistic authority and its delegation along defined lines by democratic authority is well stated by Moehlman [11]

Since the function of organization has been established as a means and not an end, the value of all agents, agencies and organization forms and practices should be on the basis of their contributions to the achievement of educational objectives All executive agents and agencies involved in the execution of the program are an entity or unit in terms of purpose Any person involved in the carrying out of any part of the educational plan is functionally a part of the executive activity Every portion of the executive activity is relatively of equal importance to every other portion Internal subdivision of the executive activity is merely specialization to promote efficiency

The terminal validity of organization *per se,* the concept of each participating individual as a part of the organic total executive activity, the recognition of competency and conscience as essential to democratic operation and

[11] Arthur B Moehlman *School Administration Its Development, Principles and Future in the United States* (Boston, Houghton Mifflin Company 1940) pp 259 260

organization structure through which the exercise of civil liberties may be easily maintained are all indicated by these principles

When public school personnel is properly oriented in terms of function, the teacher becomes the most important agent in the executive activity, correlative with instruction as the supreme purpose for the organization and operation of the schools The facilitating personnel essential is of relatively equal importance in the smooth operation of the teaching process The degree to which these principles may be applied to operation depends upon the competency and conscience of the individuals involved The practice of democratic procedures does not spring full blown into life, but develops through laborious and often painful experimentation and slow growth Neither can it be legislated into the mechanics of organization, for, without competency and the spirit to work democratically, the best techniques are of little avail

Responsibility for leadership replaces legalistic authority Chief responsibility rests upon persons in positions from which leadership is expected Not only is the responsibility shared with all other persons, however, but initiative in leading should be encouraged by the designated leader Democratic functioning through leadership cannot succeed without genuine acceptance of democratic responsibility and obligation, without the possession of a democratic conscience Growth of democratic operation is of necessity slow, but this is not cause for discouragement

Characteristics of a democratic leader Leadership under legal authority and with power concentrated is a relatively simple matter Leadership under democratic conditions is a subtle and difficult procedure Certain personal characteristics and principles must be achieved Growth is necessary, the desired characteristics do not appear in mature form as a gift of God They cannot be achieved, either, through reading "fifteen minutes a day" in some of the quack volumes on personality and how to exercise influence over others Reading of competent volumes in the psychology and practice of leadership in important human affairs done in conjunction with efforts to develop leadership in actual situations is of definite assistance

1 A leader is selected for a given special ability or fitness to lead a specified cooperative project A leader has ordinarily demonstrated some ability or power better than the ability or power of other members of the group This is the opposite of selection of a leader on the basis of seniority, political power religious or social affiliations and so forth Any member of the group may become a leader at a given time

2 A leader has the willingness and ability to create a truly cooperative spirit and procedure
   - *a* Ability to suppress natural primitive urges to mastery, dominance and authority
   - *b* Ability to substitute the more civilized and mature urges to aid, encourage, inspire, to guide followers in defining, understanding and attacking a problem (gets personal satisfactions thus instead of bolstering ego through dominance—which is childish)
   - *c* Willingness and ability to secure sympathetic insight into the mental processes attitudes, prejudices, ideals motives, and aims of other individuals in group

d Ability to create an atmosphere of serious, critical, analysis of problems and procedures

e Willingness to listen to to understand, to try out if practicable, any well thought out proposal of a group member

f Willingness to recognize leadership in others—to accept it as a contribution to his group project and to allow others to take over the leadership temporarily or for the duration of the project

g Willingness to wait patiently for the more sure results which come from understanding the nature of learning understanding the specific levels of the group members rather than to seek the quicker and so called more efficient results of authority

h Willingness to recognize and to accept from colleagues intelligence and contribution superior to his own willingness to accept with consideration and attention the contributions of slower and duller individuals

3 A leader has better than average intelligence and emotional balance

4 A leader has confidence in self ability aims but also at times a profound feeling of humility sometimes even distrust of self Both attitudes contribute directly to leadership

5 A leader has confidence in human nature its improvability the creativity of all individuals A leader at times is profoundly critical of human nature recognizing its dangerous shortcomings at given moments Each attitude spurs to leadership

6 A leader recognizes critical points in the democratic development of policy recognizes when issues must be brought into the open, thoroughly discussed and decisions secured A leader recognizes even in the midst of democratic discussion crises when agreement vote or even poll of opinion cannot be secured recognizes emergencies in which it would be fatal for him to dodge responsibility for making decisions even authoritatively A leader in these instances however recognizes that he has taken responsibility and must take the consequences particularly must he make frank statements as to what he has done and why

An interesting specific analysis of two types of leadership was made by a classroom teacher and quoted by Koopman Miel, and Misner[12] The teacher was portraying characteristics derived from actual situations experienced by her

The Autocratic Administrator	*The Democratic Administrator*
1 Thinks he can sit by himself and see all angles of a problem	1 Realizes the potential power in thirty or fifty brains
2 Does not know how to use the experience of others	2 Knows how to utilize that power
3 Cannot bear to let any of the strings of management slip from his fingers	3 Knows how to delegate duties
4 Is so tied to routine details that he seldom tackles his larger job	4 Frees himself from routine details in order to turn his energy to creative leadership

[12] G Robert Koopman Alice Miel, and Paul J Misner, *Democracy in School Administration* (New York D Appleton Century Company Inc 1943) pp 15 16

5 Is jealous of ideas Reacts in one of several ways when someone else makes a proposal *a* Assumes that a suggestion implies a criticism and is offended *b* Kills a suggestion which does not at once strike him as excellent with a withering or sarcastic remark *c* While seeming to reject it neatly captures the idea and restates it as his own, giving no credit to the originator of the idea	5 Is quick to recognize and praise an idea that comes from someone else
6 Makes decisions that should have been made by the group	6 Refers to the group all matters that concern the group
7 Adopts a paternalistic attitude toward the group I know best	7 Maintains the position of friendly helpful adviser both on personal and professional matters
8 Expects hero worship giggles of delight at his attempts at humor and so forth	8 Wishes to be respected as a fair and just individual as he respects others
9 Does not admit even to himself that he is autocratic	9 Consciously practices democratic techniques
10 Sacrifices everything teachers students progress to the end of a smooth running system	10 Is more concerned with the growth of individuals involved than with freedom from annoyances
11 Is greedy for publicity	11 Pushes others into the foreground so that they may taste success
12 Gives to others as few opportunities for leadership as possible Makes committee assignments then outlines all duties and performs many of *them himself*	12 Believes that as many individuals as possible should have opportunities to take responsibility and exercise leadership

The authoritarian leader may be a benevolent despot, may be humane in highest degree but his aims differ from those of the democratic leader The authoritarian speaks of the logical perfection of assignment of duties through defined lines of the smoothness and efficiency of the system of precision in routine matters of careful balance and check The authoritarian leader may in some cases be cold and insensitive This type regards the staff as instruments designed to carry out his policies almost as extra arms and legs in some cases He is annoyed when orders are not carried out with flawless efficiency Breakdowns of the impersonal machinery are blamed on the "dumbness of staff members Annoyed, he may be heard to say, "I cannot get anyone able to carry out my policies No one has any initiative anymore! Why don't people use their judgment?' Initiative and judgment are not compatible with a rigid authoritarian scheme The effects upon the prized efficiency are soon apparent Worse than that

there are many evil effects upon mental hygiene and creativity Study and growth wither away The staff become "yes men"

The democratic leader sees his chief responsibility as coordinating the abilities, talents, enthusiasm, and contributions of his co workers He surrounds himself with the most competent persons his budget will allow He places them where their specific individual contributions will be most helpful He may be heard to say, 'Go to it! Try out your idea We will see what happens What help do you need in your particular situation?' This leader quietly prepares situations in which the leadership of others may appear and flower and in which his subordinates will experience success This leader welcomes creative contributions from anyone and gives the creative individual opportunity before the group and in try out The genius and originality which appear under these conditions is almost beyond belief The democratic leader protects his staff from unjust criticism and attack The democratic leader rises with his staff, not above it

Shorter terms for, and rotation of, administrative officers might enhance leadership A drastic change in the nature of tenure for administrative officers has appeared in theory but has not yet affected practice Shorter terms with revolving tenure within a system or between systems is suggested Revolutionary as the idea is it is by no means absurd or impracticable Good arguments exist in support *First*, continued exercise of authority does clearly have detrimental effects upon the thinking and behavior of those possessing the authority The outcome usually is arbitrary management Authoritarian management may often be courteous and suave but nonetheless is arbitrary, *ex cathedra*, and unmindful of effects upon personalities under control Harshness and dogmatism appear in some cases *Second*, genuine errors are inevitable, honest though they may be, when persons in authority rely upon their own judgment instead of utilizing wide consultation among colleagues A corollary under this point is that decisions are often selfish, deliberately disregarding the good of the group or the activity *Third* reversing the first, persons secure in their positions of authority often refuse to study local needs to make decisions, to take a stand to take incisive action They actively avoid any discussion any interest in progressive developments, any possible action which might endanger their tenure *Fourth*, persons protected by tenure often coast along with no thought of study, growth, or leadership They simply sit This group is less active than that referred to in the preceding point This is too obvious with numerous superintendents and principals to need discussion (The evil is not confined to administrative officers, untold numbers of teachers on all levels are also affected This is discussed elsewhere)

Revolving tenure might affect many of these difficulties The possibilities of shifting from one system to another neighboring one for given periods of time are provocative The necessity and the freedom to exer-

rise leadership, to achieve some observable results might be more apparent Rotation would, of course, not be automatic and all inclusive able and trained personnel only being concerned The stimulus to become eligible would be important All members of a staff might expect to serve in rotation on the many committees dealing with curriculum, instruction, and other items

Group administration might enhance leadership Administration of a building by committees instead of by a principal was proposed many years ago for elementary schools and is in operation in some places The legally appointed principal is a participating member of the committees, but it would not be impossible in the future to eliminate the permanent principal and to elect one from the group

Staff participation in selection of leaders The logical application of democratic principles does point toward a greater voice for teachers and the staff *in toto* in the selection of professional leaders This could be done, as indicated in this and the preceding chapter, without impairing the necessary administrative responsibilities of the leader

Tenure should become increasingly professional The foregoing must not be construed as a plea for the abolition of tenure Tenure, properly utilized indirectly protects the community and secures efficient service through protecting the teacher from minority pressures, from interference by powerful individuals of local prominence, from arbitrary dismissal because of personal spite Tenure properly utilized protects the teacher directly as indicated Tenure as applied at present however, often merely protects the educational worker in the possession of a job without reference to achievement or continued growth Tenure actually produces in far too many cases individuals who defiantly flaunt their tenure in the face of suggestions for improvement and growth The remedy lies in the increasing professionalization of educational workers to the point of recognizing that the sole safe basis for tenure is not legal enactment but efficient service and continued growth in observable degree Tenure within a professional group should be administered by the group in terms of recognized professional standards and not by legalistic process

The actual processes of democratic discussion in the formulation of policies and plans The question most often asked about democratic administration and operation refers to the actual process[12] through which policies and procedures are formulated The technique in general is, as stated earlier, that of group discussion How does it operate within the councils committees and study groups? All we can do is outline the process, details emerge during use of the process

1 *A problem arises* The problem may be a question involving far-flung changes in basic policy, the reorganization of curriculums, development of principles of professional tenure The question may be one of small

[12] See close of chapter for specialized bibliography on the actual techniques of group discussion

scope dealing with limited aspects of teaching reading, the use of certain visual materials, a change in an otherwise satisfactory report card Problems may involve the whole community, or just the professional staff of the school system, or the staff and pupils of a small portion of the community or system

2 *A problem may be discovered by any member of the professional staff or of the community* A problem, large or small, strictly professional or more general may be first mentioned by a pupil by a parent or group of parents by a teacher, by any other educational officer by a community group by the cab driver who takes the superintendent to the station one day Problems are discovered in shortages revealed by evaluational programs in the complaints of the community, in the desire of trained alert teachers to try experiments or to discuss possible changes, in the writings of frontier thinkers in education, in new findings of research, and in many other places

3 *The problem is defined* A problem may be defined and stated for discussion by the designated leader of the area geographic administrative, or instructional in which the problem arose The superintendent will often perhaps usually define problems which affect the entire system Principals department heads supervisors or other specialists may define problems for their respective areas The teacher will often define problems Pupils or community members may do so Earlier pages have made clear that any person may define a problem or be invited to define or to participate in defining a problem regardless of his area or position

Definition may be done in advance of large-group consideration by one person or a small group it may be done in the first place by the total group which is going to be concerned Redefinition is sure to take place in any event as discussion develops

4 *The problem, its implications, possibilities and varied solution, is considered by a group* The group considering a problem will ordinarily include all persons who in any way may be expected to participate in its solution and be affected by the problem and its solution Anyone who would under democratic principles expect to participate should be included Large groups will often need to utilize representative membership instead of total group participation Even here total participation can be provided through a series of subcommittees and study groups considering locally the same problem which the representative council or other central organization is considering

5 *The machinery for cooperative solution develops out of the situation, is not set up in advance* The councils, committees, and other subsidiary groups are set up to consider a given problem which necessitates the groupings The groups will conduct group discussions, will organize systematic study or new research, will search for new suggestions from the staff will receive and coordinate various suggestions

6 *Group discussion takes place* We make or break the democratic process at this point All persons involved have (*a*) certain unique contributions to make, and (*b*) the right and responsibility to contribute Any person, as indicated previously, may become chairman, group leader, temporary discussion leader The organization of new committees and changing membership multiply opportunities for leadership

The discussion starts An administrative officer makes a statement A teacher suggests a modification because of actual conditions in her building A specialist, resource person, consultant, or coordinator suggests possible remedies for given conditions, materials available for use Others chime in A given point may develop vigorous analysis, with small groups developing leaders and carrying on debate rather than general conversational analysis Suggestions are accepted by leaders by sub groups, by individuals Within an hour each alert person has been a leader for a moment when he contributed knowledge or creative suggestion, for a period if he seizes leadership in an interchange of argument or is formally invited to be temporary chairman Each person has been a follower and consumer as he listened and accepted This may go on for an hour or for a series of meetings lasting a year or more

The use of experts and of scientific data mentioned in Chapter II should be recalled in connection with the group discussion technique The values of democratic interchange of thought must not obscure the value of data which do not rest upon discussion 'Discussing, agreeing,' or 'disagreeing 'holding opinions concerning demonstrable factual material merely befuddles discussion Scientific materials may be attacked disagreed with only through critical analysis of the origins of those materials and not through expressing opinions Interpretations of facts and the use of facts in given situations are, of course legitimate bases for discussion, critical analysis, and group decision

7 *Try-out of decisions is provided*

8 *Policies procedures course of study materials and so forth, are progressively modified through discussion, try out, rediscussion, further modification, and so on* Growth should be continuous and never ending

Some Suggestions for Participating in Cooperative Thinking Through Group Discussion [14]

PREPARED FOR THE
MICHIGAN STUDY OF SECONDARY SCHOOL CURRICULUM
by
J Cecil Parker

1 Each person should do his own thinking Don't try 'to save time" by telling the group the right answer The leader is not a group instructor but a social engineer trying to arrange conditions so that each will do creative thinking

[14] Adapted from Goodwin Watson William H Kilpatrick H S Elliott, S A Courtis, and others

2 Group discussion is not a debating society We do not argue for the fun of it The issues are of great importance wise men disagree in their views our task is to find more truth than we bring to any group meeting We are in a cooperative quest Our thinking is creative rather than combative

3 Ask yourself which ideas experiences and differences are basic fundamental and most worth discussing

4 When discussion wanders restate the question and get a new start Sometimes if the side line is especially important put it up to the group 'Shall we follow this interesting issue that has come up or shall we return to the plan of discussion originally adopted?'

5 Make short statements not speeches

6 Do not pass any important matter that is not clear to you Sometimes individuals hear unfamiliar terms and assume that everyone else must understand hence they fear it would be humiliating to ask for explanations or illustrations This is untrue Have you not often been glad when someone else asked for clarification on a point on which you had been none too clear? Others may profit too but you are in the group to learn and you must not hesitate to ask

7 If you find yourself talking more than other members of the group train yourself to pass over minor points and to speak on only a few carefully chosen issues

8 Use special care to be fair to positions represented by a minority or not represented at all in the group If you are aware of a position not being adequately represented present it as its adherents would like to hear it stated then explain your disagreement

9 Challenge contributions you cannot fully accept Do not keep your disagreements quiet in the mistaken notion that it is better manners to pretend to agree when you do not Make inquiry concerning the assumptions involved in the contribution

10 The either or attitude is on the whole not fruitful Search rather for new means which enable both sets of values to be pursued without clash Our concern in cooperative thinking is not simply to choose between two ways we now know but if possible to find a way of integrating the values of both thereby creating an improved solution However avoid smoothing over differences Differences should be probed with questions to make them clear and sharp

11 When there is some confusion over a diversity of opinions expressed a minute of silence can do much to help members rise to a clearer perspective of what has been said In suggesting this pause the chairman should restate the precise issue under discussion After the pause the members may be more able to cooperate in detecting the root of the disagreements This may be in the partial nature of the experience and evidence used or in a difference in the sense of values Try to keep in mind some ends everyone wants

12 Be on the lookout for different uses of the same word Call for illustrations whenever this difference becomes confusing Do not wrangle over a verbal definition

13 Trust the group There is no person in it who is not superior to the rest in at least one respect The experience of all is richer than the experience of any The group as a whole can see further and more truly than its best member Remember that every member of the group is an individual just as you are

14 For every discussion there is available a limited amount of time Each individual should help make it possible to utilize the time more effectively To attempt too much in too short a time fosters a habit of slipshod and superficial thinking

15 Summarize (1) whenever a major point is finished before going on to the next (2) whenever the discussion has been fairly long drawn out or confused (3) shortly before the close of the period Try to use the words of members of the group, rather than your translation

Another set of guides which bring out two or three points not included in the foregoing is taken from Miel, *Changing the Curriculum A Social Process*[15]

1 Give full opportunity for every member of the group to contribute every suggestion that occurs to him

2 Keep the gathering of suggestions as a phase of the discussion separate from the evaluation of the suggestions (This usually ensures a more impersonal discussion of suggested solutions)

3 Allow plenty of time for pooling of facts and harmonizing of conflicting values

4 Before final votes are taken use straw votes to uncover minority opinion early in the process In this step allow each voter to register as many choices as he wishes

5 Seek for a consensus by allowing full discussion of the minority view before entertaining formal motions

6 If after adequate discussion the group is still fairly evenly divided as to the proper course of action on a given matter consider whether or not a decision really must be made at the time Often it is better to postpone making the decision until further study can be made by all parties

7 If a decision of some sort must be made have it understood that the decision is a trial one whose results will be carefully reviewed in order that the large minority will cooperate as wholeheartedly as possible

Differences of opinion inevitable and desirable[16] When all persons participate in planning policies in organizing programs of action, and in making decisions will there not be endless argument, disagreement, even dissensions? Mankind long ago evolved the concept of majority rule to meet the need for action Endless differences between individuals and groups would paralyze action if there were no mechanism for reaching decision Majority rule can be a tyranny as well as an instrument of democracy A majority decision should be reached only after the freest discussion among all co-workers, only after all have been heard after all objections have been elaborated, after all minorities have presented their cases Majority decision under these circumstances represents unity

[15] Alice Miel *Changing the Curriculum A Social Process* (New York D Appleton Century Company Inc 1946) pp 139 140

[16] Excellent specific suggestions for conducting group discussions are listed in the handbooks by Denny and by the Carnegie Endowment for International Peace (see bibliography) and in Teachers and Cooperation a pamphlet issued by the Department of Supervision and Curriculum Development (Washington D C National Education Association 1937) This pamphlet also contains an excellent selected bibliography to that date

freely achieved Groups truly imbued with the democratic conscience will accept the group decision which each individual has had a chance to shape Any member of a democratic group may reopen the discussion later, may present new evidence, may raise questions, but in the absence of new evidence, the individual will faithfully perform his part in carrying out the decision which represents the best thought of the group Any decision is subject to renewed discussion and reevaluation

The foregoing does not imply that everyone must think alike, that all must agree in every detail This would be impossible even if desirable There will always be diversity within agreement differences within unity A few persons are genuinely annoyed others are discouraged by the variety and diversity of human opinion and thought Some say that there is no need to study carefully educational theory and practice because today's theory is replaced by tomorrow's Some objectors are merely lazy or untrained persons others are earnest and sincere The latter are no less uninformed than their unprofessional colleagues, but their opposition is honest Reference is to be had to the history of civilization and of education Principles, philosophies, practices even classroom devices do not change capriciously or at random They change continuously in a reasonably systematic, orderly and progressive way The successive waves of emphasis on new ideas in education are not mere passing fancies or fads New principles and procedures are not disconnected interjections into the educational process To say that "things are always changing in education' and that 'it is no use discussing all these plans and ideas" or 'just go on as we are and the old ideas will come back' is a good index of ignorance and lack of training The alert educational worker will seek discussion of new ideas will examine new suggestions To refuse to engage in vigorous discussion of new curriculums, methods policies building plans, instructional materials is to be somewhat immature intellectually and emotionally

Difference of opinion and exchange of ideas so annoying to some is, in fact, a wholesome sign The situation has vitality and the individuals are growing New research, creative contributions, will always stir discussion between conservatives and liberals Persons of different levels of ability training and experience inevitably will differ The resultant discussion and study among honest persons under a competent chairman is the road to growth Even objectors of a somewhat temperamental type, extremists perhaps, are valuable members of the group They not merely prevent complacency but often contribute new ideas of real worth Unorthodox thinkers, 'heretics," should not be excluded or ignored They may be a nuisance at times but they do serve the group well upon occasions

Endless argument, quarreling and quibbling dispute does go on in many groups The cure is not a return to imposed authority but earnest effort to rise to the level of mature democracy Group discussion will be

effective in so far as (1) we have faith in individuals, (2) the group possesses sincere convictions on the value of democratic action, and (3) the chairmen are competent leaders of discussion

The continuous discussion of differences of opinion, of the implications of facts will develop a core of group-accepted principles and processes Attention to the remaining periphery of diversity is important both for securing new ideas and for guaranteeing democracy[17]

Democratic organization can be efficient Another question constantly asked especially by those responsible for large systems or divisions is can this loose, cooperatively organized, constantly reshaped machinery actually be efficient?[18] The evidence is not yet extensive since democratic administration is still emerging slowly The evidence is scattered widely in articles and bulletins, but it is available Logical argument as distinguished from evidence is all on the side of democratic organization

Democratic organization seems to be fully as efficient as the authoritarian in securing everyday routine functioning Democratic organization seems far more efficient in securing the more important outcomes such as the personal growth of staff and pupils, maintaining mental health, eliminating fear and suspicion with their accompanying inhibitions and destruction of creativity, securing greater community participation in and respect for the educational system The dynamic, variable unpredictable aspects of any cooperative human activity are easily cared for by democratic administration but are often ignored by too rigid authoritarian procedure *Dynamic processes do not submit readily to cut-and dried rules or mechanisms* Government and industry from which we borrowed the authoritarian procedures are discovering this and, particularly in industry are moving toward democratic organization

Authoritarian administration is often not nearly as efficient as claimed because of indifference or antagonism within the structure The actions of persons or committees to which authority has been delegated are often questioned The limits of delegated authority are debated Wrangling and waste motion often result within what is outwardly a logically organized mechanism

Democratic cooperation operates within a framework The problem of formal organization of machinery has been left out of the discussion up to this point so that the principles enunciated would receive all attention and emphasis Democratic organization is not as some fear, amorphous

[17] The writer is indebted to Ralph F Striebel for a sentence here taken from an unpublished manuscript *Let's Try Education This Time*

[18] Excellent brief materials bearing upon the efficiency of democratic organization are scattered through *Democracy in School Administration* by Koopman Miel and Misner For an excellent detailed illustration see *Guidance in Democratic Living* by Arthur D Hollingshead (D Appleton Century Company Inc 1941)

See also many of the monographs and texts referred to in Chapter II of this volume Parallel arguments referring to classroom teaching with citation of six studies will be found on pp 88 89 of *The Guidance of Learning Activities*, by W H Burton (D Appleton Century Company Inc 1944)

without recognizable and dependable structure Democratic leadership operates within a framework Without a framework, without mechanisms, without rules and controls, the results are inevitably incoherence and chaos The contrast between authoritarian and democratic organization is not that of structure versus no structure The contrast lies in the *origin* and *purpose* of the structures, in the *form, operation* and *controls* within the structures A brief resummary of points selected from the foregoing detailed presentation will throw the contrasts into sharp relief

Origin and purpose Authoritarian structure is set up by legally designated leaders and is in part itself determined by law The real purpose of education may or may not be influential in the process of devising the machinery The purpose may sometime become whether recognized or not the logicality of the system and its smooth operation Duties may be and often are assigned functionally under authoritarian form, but in an overwhelming number of school systems the duties are assigned in wholly arbitrary manner In others, distribution is made in terms of the predetermined machinery instead of functional relationship The distribution of duties in certain large cities could have been made equally well by drawing them out of a hat

Democratic structure is set up cooperatively by those who are to operate it The purpose is to serve given teaching learning situations Duties are more likely to be assigned functionally The improvement of learning is more likely to be the primary consideration, smooth operation secondary Errors here are usually traceable to incorrect understandings of democracy

Form Distinction will be made in setting up any forms between the *simple, repetitive* routine operations of a school system and the *dynamic, variable*, unpredictable necessarily experimental aspects of the educational process which the system is to serve

Under either authoritarian or democratic conditions, the machinery for everyday operation of a school system will appear *outwardly* to be very similar *Inwardly*, however, the whole attitude and setting will be different because all persons concerned participated in the cooperative formulation of the scheme, all persons know it can be redesigned to meet new needs, all persons know that they individually may suggest modifications and participate in reshaping the structure

The machinery for the more dynamic aspects will, under democracy, be made and remade as situations develop Councils, committees, study groups will appear here as they did under the authoritarian scheme, but they will not be set up in advance of an actual situation, not set up by the central staff, and they will not remain fixed Democratic mechanisms will be organized in terms of the situations to be served and by the persons involved mechanisms will come and go, membership will change The flow will as often or more often originate in the committees of teachers, teachers and supervisors, teachers and pupils, or community members as

it does in the central offices All types of contact will be free and easy, instead of confined to sharply defined lines and channels

Operation The operation of typical traditional organizations is of necessity mechanical and formal to lesser or greater degree, it may be, though not necessarily so, dictatorial and repressive Democratic organization to be successful must operate with considerable flexibility, and with full recognition of the inescapable human factors involved whenever two or more persons work together This leads us to controls

Controls Authoritarian controls are easy and simple Clearly stated rules definition of areas of activity, lines of authority, control all actions Rigidity differs with systems, workers being given considerable freedom in some, reduced to actual puppets in others

Democratic organization provides for broad assumption of initiative in getting things done What then keeps individuals from "going off in all directions at once"? What prevents confusion incoherence, friction, clash? The *first* and simplest control is that of the cooperatively formulated general framework within which all are working The *second* is the cooperatively determined policy and distribution of shared duties set up especially for any given project The worker exercises initiative within a framework which he helped to set up, hence understands, and to which he gives loyalty Initiative will be along the lines of bringing the individual's particular contribution to the aid of the common outlined plan and procedure The *third* control is the recognition by any honest and sensible person that he loses the respect and confidence of his co workers and actually destroys his own effectiveness if he ignores all controls The *fourth* control is the most remote but perhaps the most powerful the democratic conscience previously discussed Individuals will need to possess firm and lasting belief in the democratic process and be determined to uphold it by working within its self-assumed obligations If that sounds utopian and if we do not have faith that it will work, then we need not worry about the problem longer Democracy is then merely an idle dream The democratic process in school and in society will work only as it is based on convictions of democracy and upon willing assumption of its responsibilities

Simple illustration of democratic procedure A simple everyday situation and one which causes much trouble even under the carefully defined controls of the authoritarian system is the flow of assistance to an individual teacher or group of teachers All suggestions and materials must reach the teacher traditionally, through one source the building principal Under democratic supervision advice and aid may flow from several sources to one person or group Suggestions may come to a teacher (or pupil, or principal, or supervisor, or superintendent) from several fellow-teachers, from several supervisors or other consultants, from special service personnel The suggestions may come in response to a request from a teacher who under democracy has the right to consult any co

worker, or the suggestions may be volunteered by co-workers who under democracy accept the obligation to offer help if the situation demands it A problem in coordination is presented

First, suggestions from various persons are not likely to be seriously contradictory and confusing when given by co-workers who set up in the first place the policy and plan under which they are giving and receiving advice *Second* the person receiving the advice instead of giving way to complaint if advice does conflict has under democracy not only the right but the obligation to weigh suggestions in the light of known facts to accept or reject on the basis of logic and evidence *Third*, the individual may discuss with the various advisers attempting through round robin conversations to sift and coordinate *Fourth*, the teacher may ask the various specialists for a brief group conference for analysis of suggestions The foregoing analysis holds for any officer in the system from superintendent to custodian, and for groups of persons

Democratic organization should result from growth, not from an administrative order The lengthy analysis of and plea for democratic organization does not mean that we are to throw overboard the traditional organizations we have Democracy in school administration will result from long slow growth as it has in all other human activities, it will be evolved through long patient, but constant effort by all members of the staff studying and working together

Serious obstacles stand in the way *First* and probably the most dangerous is the long entrenched tradition of authoritarian administration *Second* and corollary to this, is the inertia and unwillingness to change among those with vested interests in the old Political patronage in some systems is a part of this point *Third*, there is lack of knowledge of and experience with the democratic process This is a challenge as well as an obstacle *Fourth*, it is said that human nature is against change against assumption of responsibility, against the constant alertness the "eternal vigilance" which is the price of democratic freedom Human nature has potentials of equal if not greater, power for progress, for courageous assumption of responsibility, for persisting through disappointments toward ideal goals

The chief point is that democratic organization is wholly possible of achievement by any group which desires it ardently enough and which will do something about it Democratic organizations are beginning to appear in increasing numbers not merely in education but in industry as well The cardinal sin is to sit around and discuss it without doing anything about it Educational workers must not be discouraged by obstacles nor bamboozled by those opposed to democracy They must study the principles and then endeavor to take action

Democratic organizations schematically represented Democratic organization cannot be charted so easily as the traditional mechanisms General

outlines can be presented which it is hoped will stimulate groups to develop their schemes Charts are static representations of dynamic processes Councils, committees, and the like change, personnel is constantly changing within a democratic organization Charts must be examined therefor with those facts in mind

Illustrations of the general theory for a single school and for the system Before taking up actual illustrations found in practice we may examine schematic outlines of the theory One of the best discussions is found in Koopman, Miel, and Misner [18] The chart on this page shows the set up which they advocate for a single building and which is based upon the following assumptions

THE UNIT OF PARTICIPATION

From G Robert Koopman Alice Miel and Paul J Misner *Democracy in School Administration* (New York D Appleton Century Company Inc 1943) p 81

1 Teachers as a professional group charged with important social responsibilities should continuously study their own professional problems if the school is to function as a dynamic social agency The need for such study suggests the formation of a committee which is called here the Teacher Affairs Committee The essential functions of the Teacher Affairs Committee are

a Keeping faculty members informed concerning the activities of professional organizations to the end that the rights and responsibilities of all professional agents may be recognized and discharged effectively

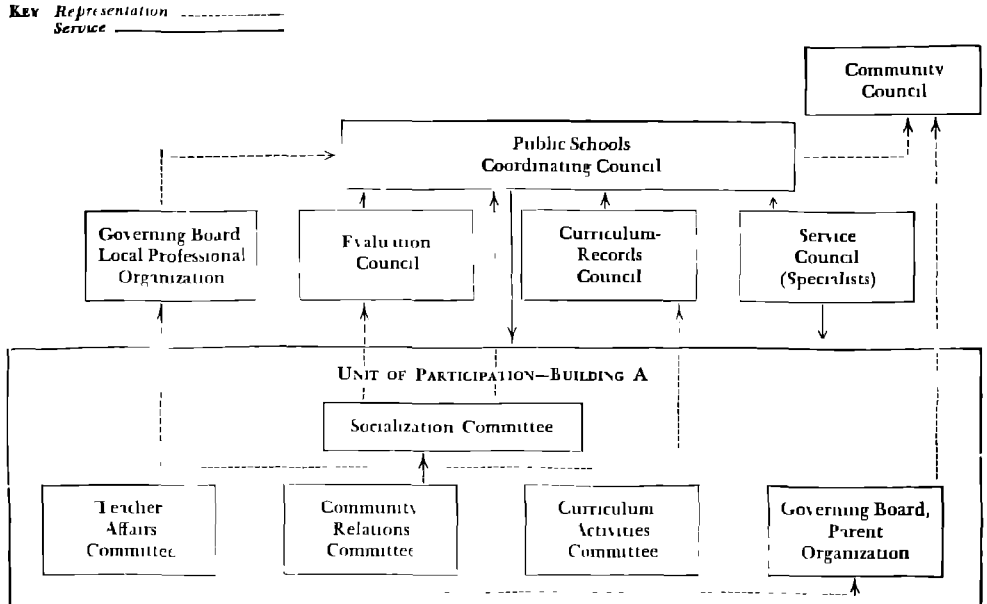
b Facilitating the personal and professional growth of all agents by making available the services of specialists and the results of significant studies, reports and writings which will help each person to become an increasingly alert, informed and useful member of the profession and of society

c Promoting optimum security for teachers

d Providing opportunities whereby professional agents may participate in recreational and social activities which will further normal human relationships

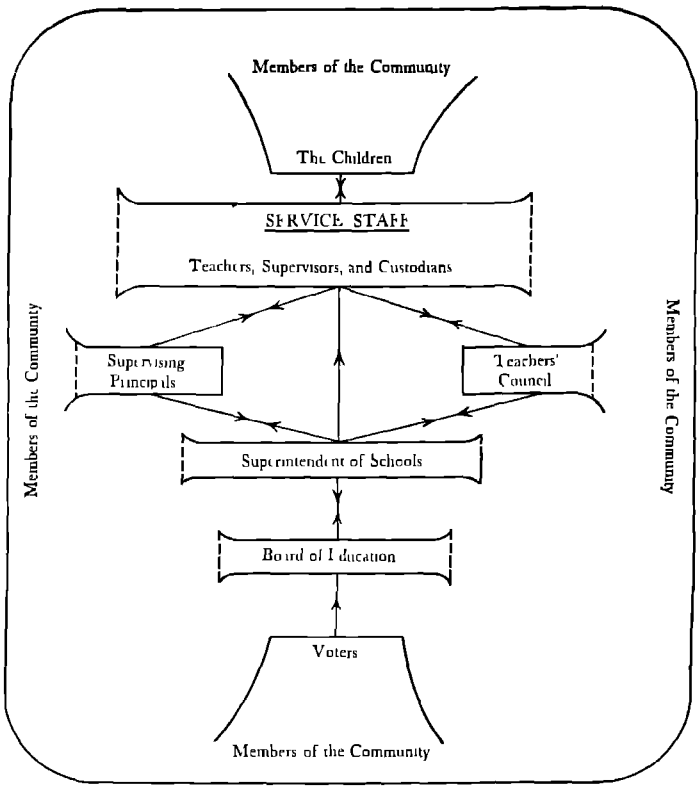
e Representing the faculty in the translation of accepted policies into action

[18] Koopman Miel, and Misner *op cit*, Ch 4



ALL CITY ORGANIZATION

From G. Robert Koopman, Alice Miel, and Paul J. Misner, *Democracy in School Administration* (New York: D. Appleton-Century Company, Inc., 1943), p. 86.



PROPOSED CHART OF THE ORGANIZATION OF A SCHOOL SYSTEM NEW COMMUNITY-CENTERED SET-UP

Arrows indicate lines of policy formation and authority. Heavy and broken lines indicate interplay between the school organization and the community. From Clarence A. Newell. The Children Are at the Top in This Organizational Chart. Based on Modern Educational Design. *The Nation's Schools*, Vol. 31 (June, 1943), pp. 24-25.

2 A public school needs the application of intensive group thinking to the end that its activities may have unity of purpose Opportunity for such group thinking is provided by a committee which is called here the 'Curriculum Activities Committee ' The essential functions of this committee are
   a Adapting general curriculum policies for use in a given building
   b Organizing the learning experiences of students including student participation in the administration of the school and planning the use of specialists
   c Developing techniques of evaluating the curriculum experiences of students
   d Keeping curriculum records
   e Planning the instructional budget
   f Planning utilization of school plant
   g Planning replacements and additions to school plant

3 Real experiences must be the basis of the educative process and therefore the total environment in which persons live must be recognized as the source of the most important learning experiences This suggests the need for a committee that is called here the Community Relations Committee The essential functions of the Community Relations Committee are
   a Facilitating the participation of all members of the community in planning executing and appraising educational policies and activities
   b Planning interpretative programs and exhibits
   c Making available objective data concerning community educational needs through the technique of the continuous community survey
   d Cooperating with community groups in the continuous development of effective agencies and activities of adult education

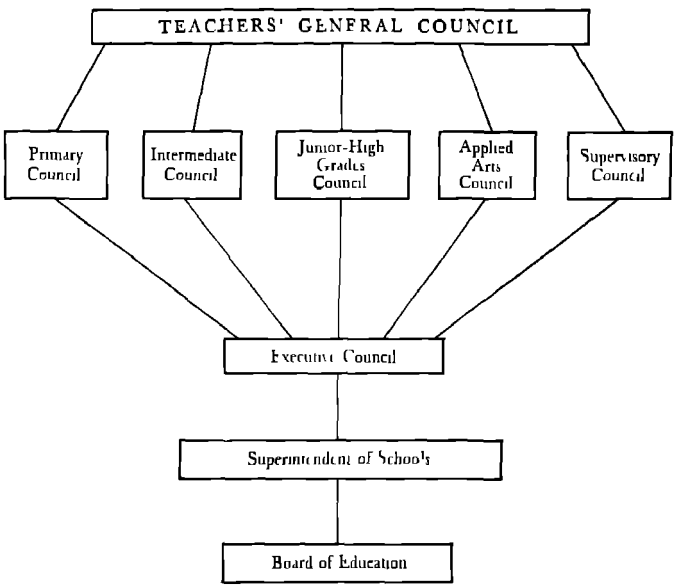
4 The activities of these basic committees must be coordinated if they are to be effective in promoting socialization This requires the organization of a coordinating committee which is called here the Socialization Committee The essential functions of the Socialization Committee are
   a Surveying and evaluating social life in order better to criticize the the function of the school in society
   b Interpreting results of evaluation activities in terms of the unitary objective of education—democratic socialization
   c Determining steps emphases, and sequences—the strategy of school administration
   d Reviewing, coordinating and integrating activities of students teachers specialists and community groups
   e Maintaining balance among the activities of students teachers and community groups

The chart on page 106 shows the general scheme for a city-wide organization The assumptions given above for the building organization hold here Other relationships are inferrable from the chart

A very ingenious scheme proposed by Newell is seen in the chart on page 107 He wishes to emphasize that the school organization works not in a vacuum but within a community The lines designating groups flare out toward the community and are set off from the community only by dotted lines indicating that no complete barrier should exist Easy inter

play should be indicated The general principles set forth by Newell are similar to those in this chapter

Another scheme designed to indicate the prominence of the periphery in contrast to the central organization is found in the *Proceedings* of the Eighth Annual Conference for Administrative Officers of Public and Private Schools



COUNCIL ORGANIZATION

From William C Reavis editor *Proceedings* of the Eighth Annual Conference of Administrative Officers of Public and Private Schools (Chicago University of Chicago Press 1939) p 180

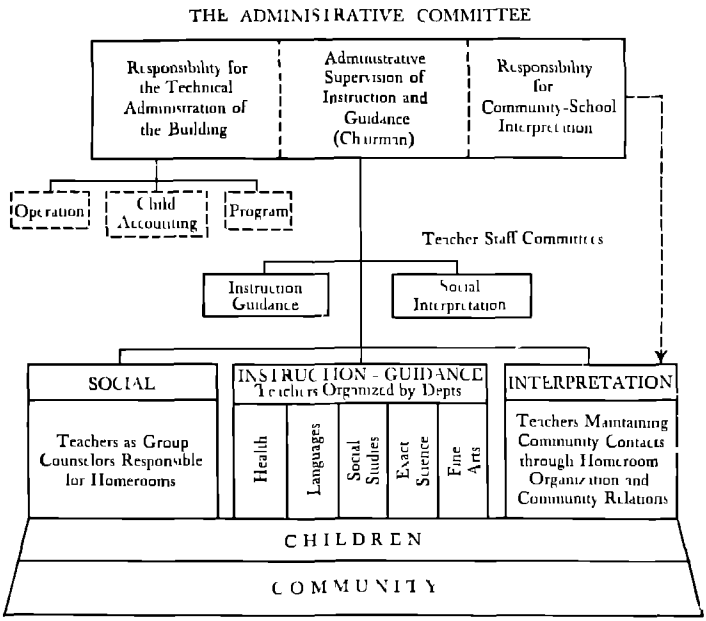
An excellent scheme for single building administration is given by Mochlman and is seen in the chart on page 110

Illustrations of actual practice in small and large systems The chart on page 113 shows a simple organization for the small system of Webster Groves, Missouri The chart on page 112 shows the somewhat more complicated organization in Denver, Colorado

Organizations which indicate interaction with community toward greater integration of educational effort and outcome Interaction with the community agencies was indicated in the early pages of this chapter Two later chapters (X and XIV) will develop further details. For the

moment we will examine three charts which indicate this interrelation ship The first one is from Tyler, Texas, where an extensive and important program has been under way The second one outlines the organization of the community council in Glencoe, Illinois

The third chart shows the organization for a community survey and improvement of the schools in Weston, Massachusetts, in which the writer participated as one of the consultants



ADMINISTRATIVE ORGANIZATION UNDER COMMITTEE PLAN OR MULTIPLE PRINCIPALSHIP

From Arthur B Moehlman *School Administration Its Development Principles and Future in the United States* (Boston Houghton Mifflin Company 1940) p 510

A fourth chart from South Kingstown, Rhode Island illustrates still another type of community participation in surveying and improving the schools

DISCUSSION QUESTIONS FOR QUICK GENERAL INTRODUCTION

(Use the same questions as appear under this heading at the close of Chapters I and II)

Discussion Questions Calling for More Extended Analysis

1 List several reasons of major importance showing why it is of the utmost importance that any given school system attack and make tentative solution for the problem presented in this chapter

2 Examine critically the two outlines (authoritarian and cooperative) of principles given in this chapter

a If there are any items omitted in either scheme which you think should be included mention them and present arguments

b If there are any items with which you cannot agree, present your arguments

3 Cite from your own experience (either as teacher supervisor, principal, superintendent) two concrete illustrations of difficulty arising from lack of good administrative organization within the school system Describe the cases briefly, indicating how the application of principles in this chapter might have obviated the trouble

4 Cite from your own experience any illustrations you may have encountered wherein good organizations were operating, whether authoritarian or cooperative

Written Reports

Superintendents supervisors principals and others are urged to use their own situations in answering some of these exercises Class members will recognize that frank discussions of local situations are confidential

1 Describe in some detail with charts the administrative organization within your system with special reference to supervision

Include an analytic statement showing agreement or disagreement with principles

Include definite suggestions for improvement if the present organization is not satisfactory

(Be specific in presenting the conditions within the situation, size of system traditions personnel type of population or other significant items)

2 Students not now connected with a school system may set up their own background for a theoretical situation and develop a desirable set up or they may analyze a system in which they have worked formerly

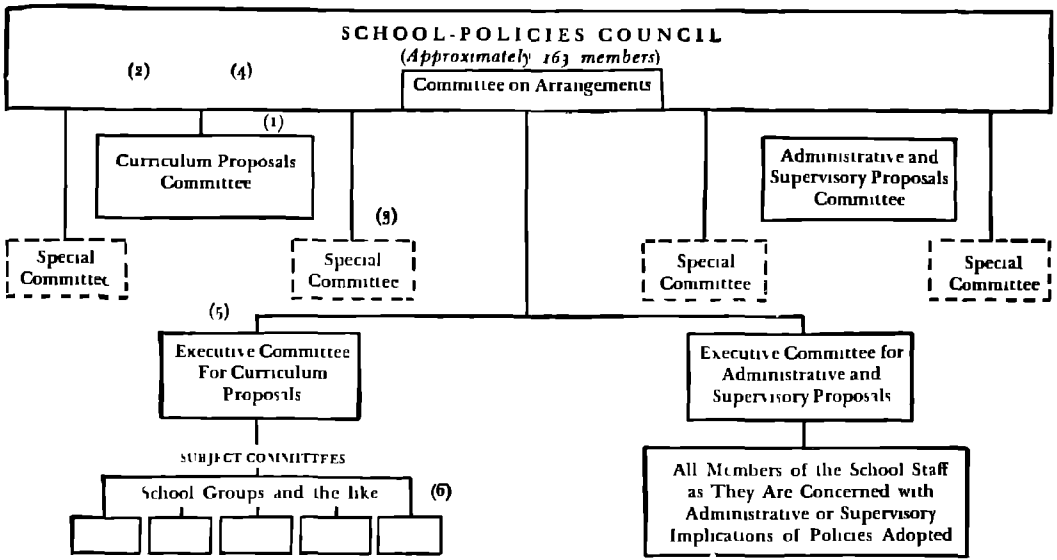
3 An individual preferably a committee should meet with the superintendent and central staff of any nearby cooperating school system or with several such systems and discuss the actual problems arising within the organization methods of flexible adjustment, and so forth Superintendents and supervisors may be invited to meet with the class for similar discussion

4 Individuals or a committee may examine the charts given in the concluding pages of this chapter with a view to improving on the organization and relationships shown Do the same for any recent charts appearing in current literature

5 The written exercise at the close of Chapter II may be used here if it was deferred previously

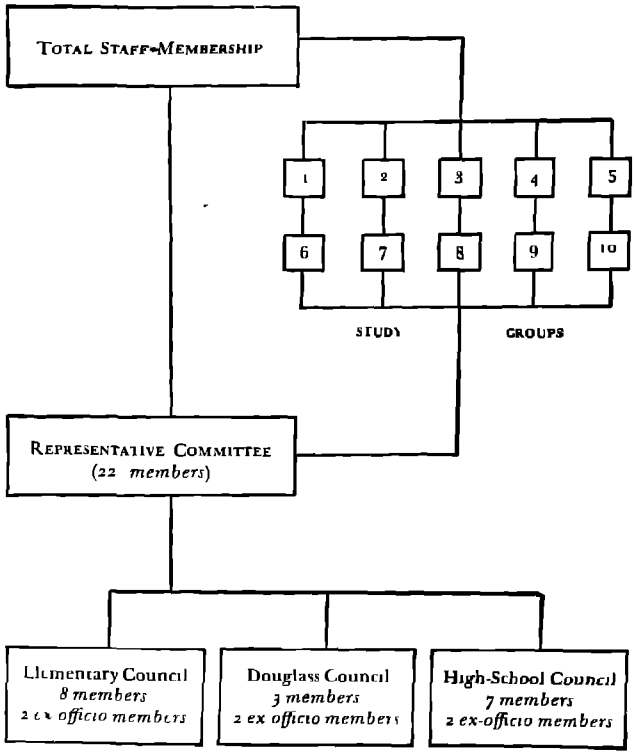
Oral Report

A student can report with benefit to the class Chapter 12 in the *Eleventh Yearbook* of the Department of Supervisors and Directors of Instruction (This material may be given as reading for the class instead)



ORGANIZATION CHART OF THE SCHOOL-POLICIES COUNCIL OF DENVER PUBLIC SCHOOLS

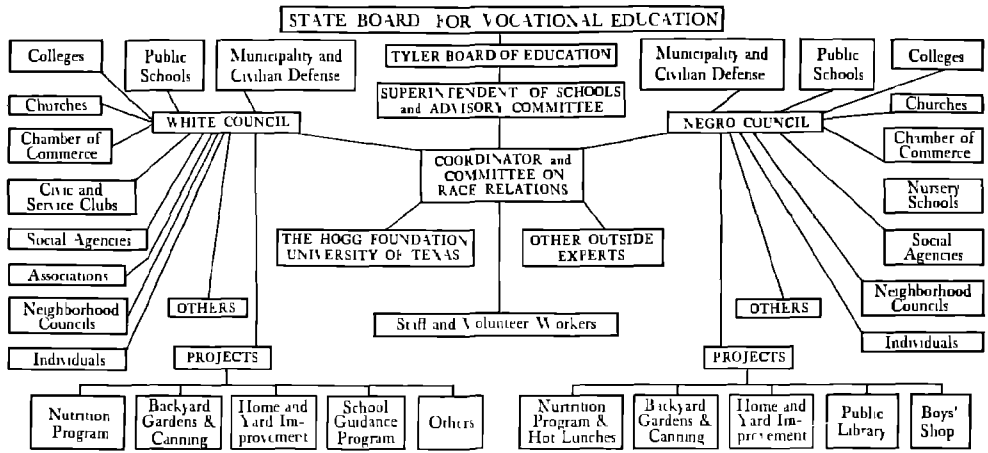
The numbers indicate the order through which a curriculum proposal may pass from initial proposal to adoption and execution An administrative or supervisory proposal would progress in the same manner through the committees indicated on the right hand side of the chart From C Robert Koopman Alice Miel and Paul J Misner *Democracy in School Administration* (New York D Appleton Century Company Inc 1943) p 98



ORGANIZATION FOR PROBLEM SOLVING, WEBSTER GROVES, MISSOURI

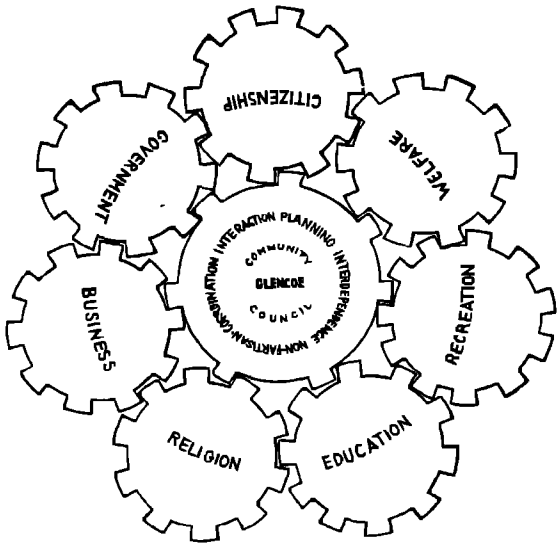
From C. Robert Koopman, Alice Miel, and Paul J. Misner, *Democracy in School Administration* (New York: D. Appleton-Century Company, Inc., 1943), p. 95.

Objectives
1 Better relationships within the family
2 The growth and development of individuals within the family
3 Better relationships between the family and the community
4 Improvement and extension of community services affecting the family



A COOPERATIVELY PLANNED PROGRAM FOR COMMUNITY WELL BEING, TYLER, TEXAS

From Lillian Peek, Team Work on the Home Front The Story of a Program of Education in Which the Entire Community Works Together to Provide for the Health and Well Being of All (Austin, Texas The Hogg Foundation University of Texas 1949) p 36 A printed pamphlet Good discussion of place of coordinator List of achievements



BUSINESS
Chamber of Commerce
Rotary Club

RELIGION
First Church of Christ Scientist
Glencoe Union Church
Lutheran Church
North Shore Congregational Israel
North Shore Methodist Episcopal
St Elisabeth's Church
St Paul's A M E Church

GOVERNMENT
Caucus Plan
Library Board
Park Board
Village Board

WELFARE
Arden Shore
Infant Welfare
Relief and Aid

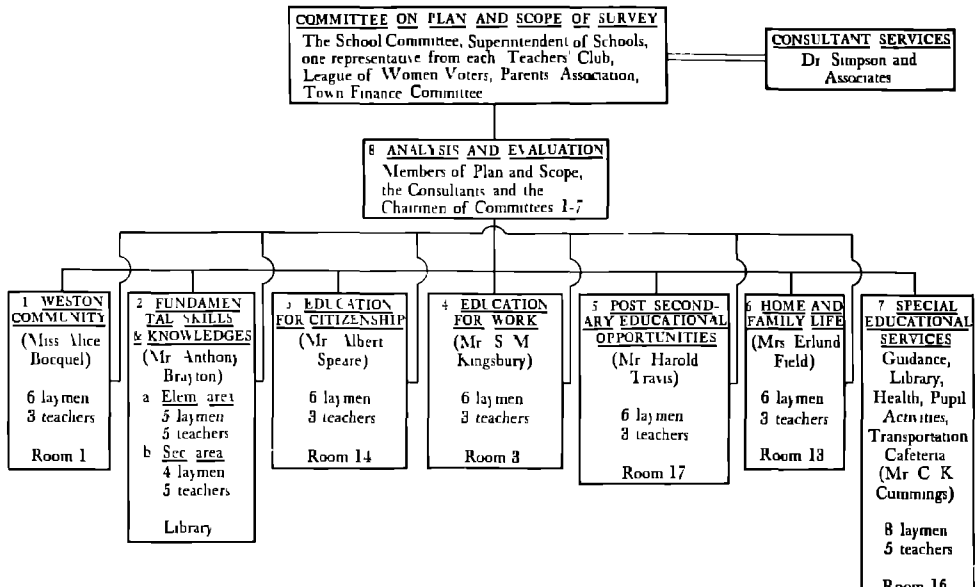
EDUCATION
Board of Education
Parent Teacher Association
Glencoe Public Schools

RECREATION
Boy Scouts
Girl Scouts
Glencoe Amateur Players
Playground Committee
Threshold Players
Garden Club of Glencoe Shokie
Garden Club of Glencoe Founders
Masonic Lodge No 984
New Trier Sunday Evening Club
Woman's Library Club

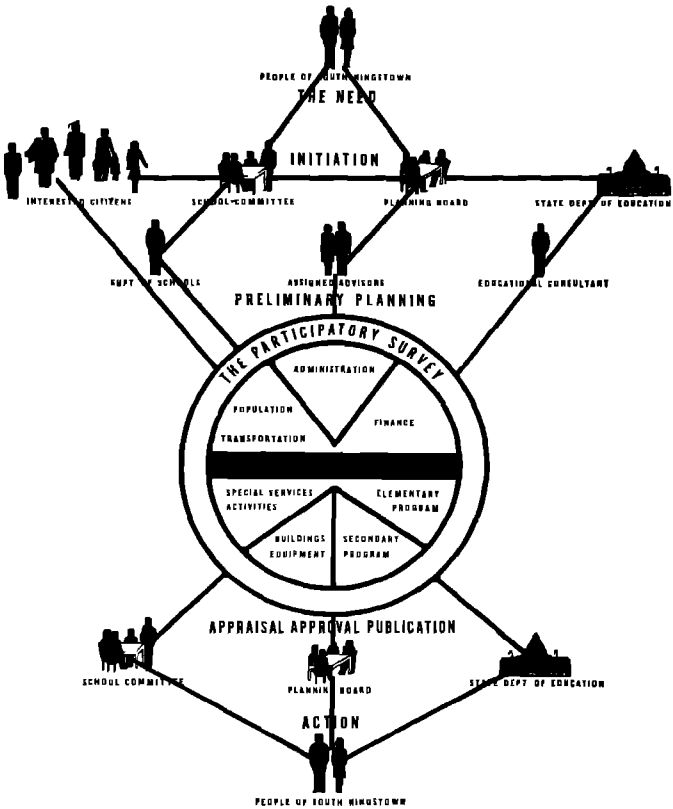
CITIZENSHIP
American Legion
D A R
League of Women Voters
Glencoe Historical Society

ORGANIZATION OF A COMMUNITY COUNCIL

From C Robert Koopman Alice Miel and Paul J Misner *Democracy in School Administration* (New York, D Appleton Century Company Inc 1943), p 301



ORGANIZATION OF THE PARTICIPATORY SCHOOL SURVEY WESTON, MASSACHUSETTS, 1944-1945



THE STRUCTURE AND ORGANIZATION OF THE PARTICIPATORY SURVEY OF THE SCHOOLS OF SOUTH KINGSTOWN

From *We the People of South Kingstown Rhode Island, Look to Our Schools* (Providence RI State Department of Education 1945) p 7

ADDENDUM TO CHAPTER III

The examination of thinking in fields far removed from education often gives further insight into the problems and unquestionably develops greater security in the educational worker The following statement of principles of administrative organization is from a fundamental monograph in administration with special reference to government[1] The concepts developed in this chapter are notably similar to those advanced by students of the science of administration

1 Personnel administration becomes of extraordinary significance not merely from the standpoint of finding qualified appointees for the various positions but even more from the standpoint of assisting in the selection of individuals and in the maintenance of conditions which will serve to create a foundation of loyalty and enthusiasm

The new drive for career government service and for in service training derives its significance not so much from the fact that better persons will enter the service when the chance for promotion is held out to them but from the fact that a career service is a growing and learning service one that believes in the work and in the future of the enterprise

2 Even where the structure of the organization is arranged to produce coordination by authority, and certainly in those realms in which the structure as such is waning the effort should be made to develop the driving ideas by cooperative effort and compromise so that there may be an understanding of the program a sense of participation in its formulation, and enthusiasm in its realization

3 Proper reporting on the results of the work of the departments and of the government as a whole to the public and to the controlling legislative body, and public appreciation of good service rendered by public employees is essential, not merely as a part of the process of democratic control, but also as a means to the development of service morale

4 As a matter of public policy the government should encourage the development of professional associations among the employees of the government in recognition of the fact that such associations can assist powerfully in the development of standards and ideals In situations where it is natural office and shop committees should be built up

5 A developing organization must be continually engaged in research bearing upon the major technical and policy problems encountered and upon the efficiency of the processes of work In both types of research, but particularly in the latter members of the staff at every level should be led to participate in the inquiries and in the development of solutions

6 There is need for a national system of honor awards which may be conspicuously conferred upon men and women who render distinguished and faithful though not necessarily highly advertised public service

7 The structure of any organization must reflect not only the logic of the work to be done but also the special aptitudes of the particular human beings who are brought together in the organization to carry through a particular project It is the men and not the organization chart that do the work

[1] Luther Gulick and L Urwick *Papers in the Science of Administration* (New York Columbia University 1935) Principles found on pages 47 48 Students may read with profit Chapter 1 Division of Work and Chapter 8 The Process of Control

Suggested Readings

General Volumes, Yearbooks and Monographs

Alexander, William M., *State Leadership in Improving Instruction*, Contributions to Education, No. 820 (New York, Bureau of Publications, Teachers College, Columbia University, 1940)

Alexander reviews three programs Louisiana, Tennessee and Virginia respectively designated as a directive program an indirect program and a cooperative program This is an excellent discussion of principles with evaluation of operation

Bimson, O. H. *Participation of School Personnel in Administration*, Doctoral Dissertation, University of Nebraska, 1939

Cox, Philip W. L. and Langfitt, R. L. *High School Administration and Supervision* (New York, American Book Company, 1934)

This book is an early discussion of leadership

Department of Supervisors and Directors of Instruction *Fifth, Sixth, Eleventh* and *Fifteenth Yearbooks* as listed at the close of Chapter 1. The *Eleventh* and *Fifteenth* are of particular interest

Hollingshead, Arthur D., *Guidance in Democratic Living* (New York, D. Appleton-Century Company, Inc., 1941)

Here is a detailed account of evolving and using a cooperative scheme for administering a school

Koopman, G. Robert, Miel, Alice and Misner, Paul J. *Democracy in School Administration* (New York, D. Appleton-Century Company, Inc., 1943), Chs. 4, 5, 6, 7, 8

Miller, Ward I. *Democracy in Educational Administration* (New York, Bureau of Publications, Teachers College, Columbia University, 1942)

This discussion is general and easily read, giving both conservative and liberal positions

Moehlman, Arthur B. *School Administration, Its Development, Principles and Future in the United States* (Boston, Houghton Mifflin Company, 1940)

This encyclopedic work is extensive detailed with many illustrations. Use the table of contents, index, and list of illustrations

Mort, Paul. *Principles of School Administration* (New York, McGraw-Hill Book Company, Inc., 1946)

Excellent recent summary

Moser, Wilbur F. *Teacher Participation in School Administration, Its Nature, Extent, and Degree of Advocacy*, Doctoral Dissertation, Leland Stanford University, Calif., 1948

Reavis, William C. *Democratic Practices in School Administration* (Chicago, University of Chicago Press, Eighth Annual Conference of Administrative Officers of Public and Private Schools, 1939), Ch. 5 particularly

Rorer, John A. *Principles of Democratic Supervision* (New York, Bureau of Publications, Teachers College, Columbia University, 1942), Ch. 4 very valuable

Representative Current Articles

American Association of School Administrators, *Personnel Responsible for Supervision* (Washington, D.C., National Education Association, 1940) A pamphlet

Douglass, H. R., "Cooperative Supervision as a Procedure in Problem Solving," *American School Board Journal*, Vol. 104 (May, 1942), pp. 15-16

Education and National Defense Series 'The Schools and Community Organization,' Pamphlet No 5 (Washington, D C, United States Office of Education 1944)

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———, Can the Line and Staff Principle Unify Instructional Leadership' *Educational Method* Vol 20 (April 1941) pp 333 339 also in the *Bulletin of the National Association of Secondary School Principals* Vol 25 (April 1941)

STOOPS I Organization of Administration of Major Supervisory Services *American School Board Journal* Vol 102 (June 1941) pp 19 20

WAHLQUIST J I Conflicting Views of School Administration and Supervision *Educational Administration and Supervision* Vol 27 (February 1941), pp 81 98

The Technique of Group Discussion and Decision

The essence of democratic action lies in decisions based upon common understandings freely achieved through free discussion The technique is appearing increasingly in the administration of many types of human activity including industry the conduct of the war community affairs the attack upon delinquency and so forth The schools are the training ground for democratic discussion both in the classroom and in administration or supervision A special bibliography is therefore given herewith

General Background

American Association for the Study of Group Work (Offices at 670 Lexington Ave New York N Y) issues a bimonthly magazine publishes bibliographies and pamphlets both printed and mimeographed

The Group The bimonthly magazine contains articles on many types of activity

A Selected Bibliography on Group Work, compiled by Frances A Hall for the American Association for the Study of Group Work Printed pamphlets at 15 cents Contains 161 references including books printed and mimeographed materials All types of group activities included useful not to all but many school workers

Textbooks are now numerous which deal with community organizations, community schools, morale, mental hygiene industrial democracy, and usually carry a chapter or part thereof dealing with group organization group leadership, conferences, and discussions

More Specific Treatments

BAXTER Bernice and CASSIDY, Rosalind *Group Experience* (New York, Harper & Brothers 1943) Chs 1 2 and 3 Excellent bibliography

BOWMAN L C *How to Lead Discussion A Guide for the Use of Group Leaders* (New York The Woman's Press, 1934)

Carnegie Endowment for International Peace *A Handbook for Discussion Leaders* (New York) Topic No 9 contains excellent specific discussion of mechanics and arrangement of groups

CLARKE L L *The Art of Straight Thinking* (New York D Appleton Century Company, Inc 1929)

Certain other books on thinking and upon inquiry contain valuable discussions

Conference Leader Training (Sacramento Calif Department of Education 1943)

A manual for training conference leaders

COOLER Alfred M *How to Conduct Conferences* (New York McGraw Hill Book Company Inc 1942)

This is a discussion of many applications of the conference method

DINNY, George V Jr *A Handbook for Discussion Leaders* (New York Town Hall)

Department of Secondary School Principals *Talking it Through A Manual for Discussion Groups* (Washington D C, National Education Association 1938)

Department of Supervision and Curriculum Development *Group Planning in Education, 1945 Yearbook* (Washington, D C National Education Association 1945)

This yearbook contains an excellent collection of specific illustrations from all levels and probably the best collection of reports on practice No bibliography

Department of Supervisors and Directors of Instruction *Sixth Yearbook Effective Instructional Leadership* (Washington D C National Education Association, 1933)

——, *Eleventh Yearbook Cooperation Principles and Practices* 1939

The entire volume is a discussion of general theory It does not discuss actual techniques of group discussion but gives good illustrations of cooperative operation of many school projects A pamphlet issued as a preliminary to this yearbook and entitled, Teachers and Cooperation, contains even more specific materials and is doubtless available in libraries

——, *Thirteenth Yearbook, Mental Health in the Classroom*, 1940

This whole volume is good particularly here Chapters 5 6 7 9 15

——, *Fifteenth Yearbook, Leadership at Work*, 1943

The entire volume is exceptionally good on general theory of cooperative action

EDWARDS, Violet, *The Group Leader's Guide to Propaganda Analysis* (Revised edition, New York Institute for Propaganda Analysis, 1938)

ELLIOTT, H S *Process of Group Thinking* (New York Association Press, 1928)

LEWIS, Russell H *Civic Conference Leadership Institute for Training Leaders* (Los Angeles National Bureau of Civic Research, 1945)

FANSLER, Thomas "Discussion Methods for Adult Groups" A pamphlet which with others may be obtained from The Service Bureau for Adult Education Division of General Education New York University New York

GARLAND, J V and PHILLIPS, C I *Discussion Methods Explained and Illustrated* (New York H W Wilson Co 1938)

GILES, H H "It Can Happen" *Educational Leadership*, Vol 1 (January, 1944), pp 206-211

Simple brief valuable to classroom teacher

———, *Teacher Pupil Planning* (New York, Harper & Brothers 1941)

Extensive detailed discussion and illustration

GOSLIN, Willard E, "When We Work Together, *Educational Leadership* Vol 1 (January 1944) pp 221-225

HALL, D M *How to Lead Adult Groups* (Urbana, Ill College of Agriculture, University of Illinois)

A comprehensive handbook which presents group leadership as a teaching skill Free

HIATT, Melvin I A Parent Looks at Group Processes *Educational Leadership*, Vol 1 (January 1944) pp 215-216

DE HUSZAR, George B *Practical Applications of Democracy* (New York Harper & Brothers 1945)

Excellent emphasis on doing something in contrast to always talking about it

JUDSON, L S and JUDSON, Ellen *Modern Group Discussion Public and Private* (New York H W Wilson Co 1937)

LEWIN, Kurt The Dynamics of Group Action *Educational Leadership* Vol 1 (January 1944) pp 195-200

MEAD, Margaret *And Keep Your Powder Dry An Anthropologist Looks at America* (New York William Morrow and Company Inc 1942)

SHEFFIELD, A D *Creative Discussion A Statement of Method for Leaders and Members of Discussion Groups and Conferences* (New York Association Press 1936)

———, *Training for Group Experience* (New York Association Press 1929)

This book outlines many concrete techniques

TABA, Hilda *Dynamics of Education* (London Kegan Paul French, Trubner & Co 1932)

TEAD, Ordway *Art of Leadership* (New York Whittlesey House 1945)

United States Department of Agriculture *What Is the Discussion Leader's Job?* (Washington D C) Single copies free

——— *Suggestions for Discussion Group Leaders and Suggestions for Discussion Group Members* (Washington, D C) Free

URWICK, E J, I *Philosophy of Social Progress* (London Methuen and Co, 1920)

WALSER, Frank, *Art of Conference* (New York, Harper & Brothers 1944)

IV

The Planning of Supervisory Programs

The foregoing chapters have set forth in general terms what supervision is and why we must have it. The major functions have been listed. The philosophy under which these functions should be exercised has been outlined. Various schemes for organizing personnel and allocating duties have been suggested. We come now to one of the most important problems in the whole field, namely how the actual work of supervision shall be planned and carried out.

Planning is a fundamental principle of supervision. Supervisory leaders who do not develop with their groups plans of some sort are (1) towering mental geniuses capable of managing complex affairs and groups, (2) autocrats, (3) hopeless incompetents or (4) politically secure appointees who do not have to care whether they exercise leadership or not.

All other important human undertakings are planned. No one would build a road, a house, or a bridge without plans and specifications. If these seem to deal with mechanics and fixed items, consider the construction of a sales or a political campaign. The most elaborate planning by high priced "planners" is necessary to influence (teach) the public. Propaganda, advertising, publicity of any sort, all are methods of teaching and supervision, and they are valuable only to the degree that they are planned carefully in terms of the results desired, the materials available, and the psychology of the "learners." Whether one is electing a president of the United States, planning an evening gown, planning to influence the citizens of a village to elect a dog catcher, or planning to bring an understanding of the causes of the American Revolution to thirty-five eighth grade pupils, some anticipatory organization and sequence are necessary. All planning, as indicated in previous chapters, should be cooperative, the entire group participating.

One of the marks of intelligence and special ability is foresight and anticipatory planning. Careful planning for the future enables one individual or group, other things being equal, to accomplish things which unorganized individuals or groups not only cannot achieve but cannot understand. Though luck sometimes plays a part, success in this world

is far more often due to planning for the future than to either luck or waiting for opportunity to knock The stupid, the careless, the shiftless, and the lazy do not plan

In the school world experience has demonstrated again and again that organizing a tentative program for the guidance of school interests is essential to the success of any situation During the recent depression, school administrators lost out again and again in competition for funds with other departments of the government The other departments came in with facts and figures, tabled and graphed with analyses of past programs and projected future activities The school man usually came in with sentimental pleas for boys and girls and a consciousness of the sanctity of his cause The man with the facts and plans usually won

Supervision is particularly in need of planning It is an unusually complicated process Many different items must be considered There is *first* a group of learners of various ages chronological and mental of varied purposes, interests, backgrounds, and degree of intelligence *Second*, there are many and different outcomes to be accomplished singly by the learner but simultaneously by those promoting learning *Third*, there are subject-matter, instructional material and many learning activities of varying complexity and accessibility The nationality of the pupils their social and economic status that of the school and the types of buildings and rooms available will all complicate the matter Furthermore, some of these items change from term to term from week to week and even from day to day *Fourth*, there is a group of educational workers who vary in age background, and temperament as widely as do the pupils These adults will differ greatly as to their philosophy of education and theory of learning, and as to their beliefs in the nature of subject-matter *Fifth*, the developments in the field of education are so rapid and so important that it is a difficult task merely to keep the school system abreast of valuable new departures *Lastly*, there is the necessity of securing unification or integration of educational effort through supervision It may be repeated that supervision is highly complicated Improvised inspirational opportunistic random desultory and haphazard supervision inevitably results in chaos The planning of this complex human activity necessitates the cooperative participation of all concerned

An educational staff without a program has no point of departure and no destination The value of supervision furthermore, cannot be determined well if at all, unless a plan is set up in advance sufficiently definite so that the results of its operation can be measured The staff must have clearly in mind the objectives which they wish to attain, they must know the methods by which these outcomes may be accomplished, they must know some of the obstacles which will likely appear, they must learn how to adjust the means and facilities available to the achievement of the desired end A good deal of ineffectual supervision exists because groups have failed to make definite plans

The following definite reasons may be advanced in support of planning in supervision

1 A planning program insures that the staff has examined the situation, analyzed needs and resources, and selected for attention certain needs in the form of weaknesses to be remedied or new departures to be attempted
2 A planning program is a source of professional stimulation to all concerned
3 A planning program insures an orderly sequence of professional activities directed toward the achievement of designated activities Vague and general supervision mere routine visitation and conference are replaced by a dynamic evolving series of diverse activities
4 Planning programs cooperatively makes for the easier coordination of the work of all persons
5 A planning program gives the school board and the lay community clearer understanding of the work being done within the schools
6 A planning program affords an excellent opportunity for evaluating the abilities of the staff since it gives a real basis for evaluating success of supervisory activities
7 A planning program gives security and confidence to the entire staff

The planning of supervision is securing increasing recognition A comprehensive survey of supervisory planning in 259 cities of all sizes distributed over the country, was made in 1925 by students in the writer's seminar in supervision Very few cities submitted plans Some of the larger ones indicated that their work was well planned but was of such nature that it could not be reduced easily to a written statement A large number submitted no plans at all and several stated frankly that they did not know what was meant

Many replies indicated that the so called plan of supervision merely meant a routine schedule of visiting and conference, plus teachers' meetings, demonstration teaching, and the like Very rarely was the work organized around central problems growing out of the needs of the schools In those days supervision was still looked upon as visitation and conference Supervisors were not adequately trained for the work, and even if they were administrative and clerical duties very often prevented the exercise of constructive supervisory leadership The authoritarian form of administrative organization was not always able to secure cooperation between defined fields and lines of contact The very complexity of the situation, mentioned above discouraged planning

Great progress has been made since 1925 Summary compilations have not been made but much evidence is available in magazine articles and in city, county, and state reports A report from California,[1] for instance, indicates that 90 per cent of the rural supervisors have reasonably well developed plans of supervision Other similar studies are available A number of them evaluate the effectiveness of planning in addition to indicating its presence

[1] F E Redit "Teachers Appraisal of Rural School Supervisors Work in California," Bulletin No 16 (Sacramento Calif State Department of Education 1933)

Long-time and short-time planning The early statements concerning planning have recently been criticized as involving only short-term outlook, as being fragmentary and badly articulated, or not articulated at all The criticisms are correct We must distinguish between long-time and short time plans

Any school system superintendent, or group of supervisors which is alert and progressive must set up and operate a long-time program and work on certain far reaching major objectives These objectives should involve fundamental aspects of education and will be both administrative and supervisory in nature We are here concerned only with the more directly supervisory aspects

The long-time supervisory objectives will be derived from some of the basic aims and purposes of education in general and from the more specific purposes of supervision These objectives might include the following along with others

1 Securing a unification of educational effort through
   a Continuous scrutiny and restatement of objectives of education
   b Continuous reorganization and enrichment of the curriculum
   c Sound administrative organization for carrying on supervision
2 Keeping the system abreast of new developments
3 Improving levels of insight and of skills for the entire staff through
   a Opportunities to participate in the cooperative formulation of policies and plans
   b Opportunities to exercise leadership
   c Opportunity to try out experimentally new departures agreed upon by the staff or one's own creative contributions
4 Adjusting loads securing materials and improving physical conditions surrounding teaching and learning
5 Improving the opportunities of the learner to take advantage of the teaching learning situation through
   a Surveying the products of learning
   b Studying the antecedents of satisfactory and unsatisfactory pupil achievement
   c Studying and improving the interests application and work habits of the pupil population

The short time supervisory plans analyzed and illustrated later will be the means of achieving the long time objectives A succession of semestral yearly, and continuous plans, plus the coordination of several parallel plans should be organized, designed to achieve progressively the broader objectives The relationship between long-time and short-time planning the relationship of supervision to curriculum development, and the desirability of cooperative planning are admirably set forth by Caswell and Campbell [2]

Supervision depends for full effectiveness upon the existence between teachers and supervisor of a common ground of agreement as to the essentials of the edu

[2] H L Caswell and D S Campbell *Curriculum Development* (New York American Book Company 1935) pp 79 80

cational program Such agreement may be reached by individual teachers and the supervisor through a trial-and-error process based on personal relationships This method is uncertain in outcomes and is time consuming Agreement may be reached, as well, by means of orderly group consideration of the issues involved This latter method may be carried forward in organized form with thoroughgoing analysis and study and is distinctly superior in most respects to dependence on personal relationships This latter procedure is a part of a comprehensive curriculum program Thus curriculum making rightly conceived is of importance to supervision because it provides teachers and supervisors a common ground of agreement from which to approach their work

Curriculum making can render a further service to supervision because supervisory programs frequently tend to scatter efforts and to make the instructional program appear to be composed of a number of somewhat unrelated parts For example during one year work may be concentrated on remedial instruction in reading the next year on units of work in social studies the next year on non-promotion and the next on aims of education The tendency is to attack each problem as a separate distinct phase of instruction Thus desirable relationships between various aspects of instruction are not developed and teaching tends increasingly to become divided into separate compartments A comprehensive curriculum program provides a complete related view of the problems of instruction Each phase of work is seen in relationship to the other phases With such a basis supervision can relate the specific problems more adequately to other phases of instruction Steps in a supervisory program may be planned to grow logically out of preceding steps and to lead on to other steps Supervision may thus be provided with direction and coherence when based on a comprehensive curriculum program

Principles governing planning The nature of supervisory planning is made clearer and the objections further answered through scrutiny of underlying principles

(1) *The supervisory program should be formulated cooperatively, should be an expression of the combined thinking of teachers, supervisors, administrators, pupils, and community members, concerning the needs of the situation* Supervisory programs indicate the direction of effort for all those concerned with the instructional program All concerned have their own typical contributions to make to the program and its operation The teachers in particular will not be antagonistic or indifferent to supervision when they assist in setting up the objectives and in carrying out the program An organized program is always tentative it will be redesigned freely as it progresses A soundly derived program is set up cooperatively and then guides the cooperative efforts of the staff in achieving it This has all been adequately discussed before

(2) *The supervisory program should be derived from the situation, be based on facts concerning the needs of the persons and the material setting* The principle here stated is really a corollary of the one preceding The derivation of problems and procedures from a situation has already been discussed in Chapter III The principles and procedures presented there are here applied to the specific problem of planning

Supervision together with many other educational areas, has suffered from the lack of careful reporting of facts, lack of critical scrutiny of

facts, lack of unambiguous language in describing and evaluating facts The derivation of reasonably complete and precise facts must precede and be continuous with the planning of supervisory programs A good deal of so-called planning in both administration and supervision is really vague generalizing It is often superficial and definitely inaccurate Exhortatory and evangelical discussion together with pious hope that desirable outcomes will somehow eventuate is substituted for critically derived evaluated, and carefully organized proposals for action

Early efforts to derive facts on which to base recommendations and action were often very vague Impressionistic and atmospheric statements abounded such as 'on the whole good or bad "attitude excellent," "good relationship existing" "the impression made on observers was good (or bad or indifferent)" For instance in the Portland, Oregon, survey of 1910 we find the following paragraph which is quite typical of scores of others [3]

On the whole the work observed in the lowest three grades—the primary—was good much of it very good some of it distinctly superior equal to the best that the observer has witnessed anywhere

While several teachers of the grammar grades whose work was studied were probably equal in ability to the best of the primary teachers and while the grammar teachers on the whole seemed to compare favorably in ability with the primary teachers the work observed in the grammar grades both in methods and in results seemed to be as a whole decidedly inferior to that observed in the primary

Similarly in the Cleveland Survey [4]

An impression which was reported by every observer is that the quality of the instruction exhibited throughout the system is very uneven Here and there some teacher stands out as full of energy and as thoroughly in command of his or her sphere of action On the other hand some cases of teaching were observed which are so bad that it is surprising to find them in the system

Both statements are wholly innocent of any facts Furthermore, there is no way of knowing what is meant by the descriptive terms used The Portland statement actually means less than nothing since the second sentence is internally contradictory

In the Springfield Survey in 1914 the beginning of a more objective procedure was noted Classroom visitors were asked to tally certain specific and unmistakable items as follows [5]

In the first place they noted whether it was the teacher or a pupil who was talking when the visitor entered In seven rooms out of every ten it was the teacher who was doing the talking, while in the remaining three it was a pupil

[3] E P Cubberley *Portland School Survey* (Portland Ore Portland School Board, 1910)

[4] C H Judd *Measuring the Work of the Public Schools*, Cleveland Survey (Cleveland Ohio Cleveland Foundation 1916)

[5] L P Ayres *Public Schools of Springfield Illinois* Springfield Survey (New York City Russell Sage Foundation 1914)

Similarly a record was made as to whether the recitation was predominantly one in which the teacher heard the pupils recite or whether she was attempting to stimulate them to think for themselves In seven rooms out of every ten the records show that in the judgment of the visitor the teacher was mainly engaged in hearing the pupils recite what they had learned in the book

Another record made at each recitation related to the type of questioning mainly employed by the teacher The results showed that in eight out of each ten rooms the observer judged that the questions were predominantly of such a nature that the pupils could answer them only by stating facts or giving definite information In two out of each ten rooms the object of the questioning was mainly to get the pupils to describe or explain

A fourth set of records related to the answers of the pupils and showed whether these mainly consisted of single words, of phrases, or of sentences These records show that the pupils in five rooms out of every ten answered mainly in single words, while in two cases they used phrases, and in the remaining three the answers were mostly in complete sentences

The coming of standard tests improved this picture but at the same time tended to limit analysis to routine factual learning The development of the more modern techniques for observing behavior, for determining the presence or absence of understandings, attitudes, appreciations, values, and the like greatly extended the factual results of a survey The many old and new evaluational techniques are presented in Chapter VI Specific applications in making a factual survey as a basis for supervision are listed a few pages further on

The problem of deriving a basis for a supervisory program is difficult We are observing (1) an activity and not a situation, (2) a process which is constantly changing and not a routine repetition, (3) an activity and process of unusual complexity

(3) *The supervisory program should be flexible* The principles and general mechanisms for securing flexibility were presented in some detail in Chapter III These may be applied here A planning program is constantly being readjusted, replanned as the situation changes Two general principles may be repeated from the earlier chapter for the sake of emphasis

1 Flexibility is enhanced when all have participated in the cooperative formulation of the plan The group thus understands the aim and processes set up, understands the connections and ramifications They are thus ready and able to make necessary changes and readjustments with a minimum of confusion
2 Flexibility is enhanced through provision for free and easy contact of all persons with each other, through provision for easy meeting of groups for conference, through shifting membership on committees, and so forth

Two more specific principles may be added

1 The number of objectives may be kept small and plans for achieving them reasonably simple This makes for flexibility in that fewer connections must be broken, fewer procedures upset as changes emerge.
2 The objectives while definite should not be prescriptive Fixed goals, par-

ticularly of pupil achievement make for rigidity and formality Directional progress goals facilitate flexibility

(4) *The supervisory program should include provision for its own testing or evaluation* An error easy to fall into is *post hoc ergo propter hoc*, that is, assuming that certain results are caused by certain preceding events Very often the same results would have been achieved without the preceding events, or with another sequence of preliminaries This fallacy appears naively in many of the recent educational reports and research studies

In educational reports another weakness which in some instances skirts very close to unethical practice, is to seize upon whatever results do appear, claim credit for them, and assert that these were the results which had been desired from the beginning

It is necessary that supervisory programs state in advance, with such definiteness as precarious and emergent social plans permit, the evidence that legitimately may be expected to appear as proof of the efficacy of the plan In simple situations it may be test scores or statistical statements In still others it may be the appearance of objectively observable and describable institutions mechanisms materials and so forth In others it may be objectively describable changes in teacher or pupil activities or attitudes In more complex situations it may be a subjective but organized evaluation of results in terms of predetermined criteria In any event the plan must include reference to tests checks criteria to be used in determining the degree of success attained Needless to say any evaluation of supervisory plans is to be made democratically with all members of the staff free to participate

There is now in existence a small but respectable body of evidence indicating the value and success of supervisory planning or of supervisory devices singly The experimental studies on this problem are summarized in Chapter XVI

The steps in planning for supervisory programs The planning of any important enterprise goes through a number of steps mental and overt The general outlines of this process are known Specific application to supervision is made herewith

(1) *Evaluate the educational product at various stages of development, in the light of accepted objectives, by means of suitable instruments and procedures of appraisal Achievement, behavior, and growth are to be included in the evaluation* The methods of evaluating the products of learning are presented in detail in Chapter VI The following is a quick summary of general techniques which may be used to discover needs which will become objectives for the supervisory program

1 Techniques for Finding and Defining the Needs of the Learners

a A survey of fact and skill learning by means of standard tests (a strictly limited but widely used technique Supplementation through other means is imperative)

b A survey of growth in understandings, attitudes, appreciations, abilities, behavior patterns, through anecdotal and other behavior recording schemes applied in controlled and in uncontrolled situations

c An analysis of the more specific activities engaged in by pupils while reciting studying participating in planning and carrying on units, and so forth

d A collection of opinions and suggestions from pupils, particularly in regard to interests aims reaction to types of curriculum materials, to teaching techniques and so forth

(2) *Analyze the teaching learning situation in a search for the antecedents of pupil growth and learning, of failure to grow and learn* Three general procedures are carried on here, simultaneously as a rule, though separately on occasions

a Recall consider and discuss the general common possible antecedents of satisfactory and unsatisfactory growth and achievement

Antecedents for learning or for failure are to be found, as has been pointed out within the learner and his processes, the curriculum and the materials the teaching staff and instructional processes, the administrative policies the physical setting provided and in various community factors The staff calls upon its store of professional knowledge built up through training and critically analyzed experience The better the training the more sharply critical has been the analysis of past experience the greater the store of valid material from which to draw Recalled material may deal with anything from the nature and use of devices to studies of the effect of environment upon failure to learn or upon delinquency in conduct Special intensive study of some area may be necessary in cases where simple recall of ordinary information is not sufficient The recall of pertinent general principles will go on almost automatically and merges with the second phase which is separable only for discussion

b Formulate a hypothesis or set of hypotheses stating the probable causative factors discovered the improvement of which might lead to improvement in the learning product

The formulation of hypotheses is a natural process in alert minds Hypotheses are bound to arise in the minds of anyone who is scrutinizing a situation or data derived therefrom The process of deriving hypotheses may be definitely improved through attention to its nature and controls Capable persons of good training, ability and experience with sensitive insight into learning situations are likely to diagnose with considerable accuracy on the basis of preliminary data Complex situations will call for deliberate study of causes and effects The preliminary tentative hypotheses or "guesses" as to antecedents must, however, be validated through explicit study of the given situation

c Make a systematic analysis of the local situation to determine with some certainty the factors actually present as antecedents of favorable or unfavorable growth and achievement.

The general information and tentative hypotheses which have come to mind during the preliminary consideration must now be made specific through systematic analysis of the factors actually operative in a given situation

A general hypothesis might be, for instance, that poor achievement in a given instance is due to lack of capacity or ability on the part of the learner A more systematic analysis must be made through the use of intelligence tests and through studies of levels of maturity among learners and corresponding levels of difficulty in the materials Appropriateness of teaching methods for given levels of maturity and types of materials must be scrutinized Lack of attention which is often listed as a fault resident in the pupil, since it is easily observable in his behavior, may be found to be due to poor curriculum material, poor gradation of materials, lack of necessary supplementary material, to poor teaching personality or methods to poor nutrition, or any of several other causes The many factors and their interrelationships lead to the third step [8]

General techniques for discovering the factors affecting the learning product are briefly summarized here

1 Techniques for Finding Factors Resident in the Learner
   - *a* A survey of individual and group ability by means of standard tests
   - *b* A survey of information background, readinesses the nature and amount of social experience through interviews inventories and tests
   - *c* A survey of interests attitudes prejudices and the like through inventories interviews choices, projection tests
   - *d* A survey of physical health and maturity by tests and measures

2 Techniques for Finding Factors Resident in the Staff
   - *a* A listing made directly from the requests and suggestions of teachers These will appear in the participatory planning conferences may be secured through individual interviews or through small group conferences Many can be secured from the records of supervisory assistance requested during a given period
   - *b* A cooperative study with individuals or groups of classroom techniques used and proposed
   - *c* A listing of needs as observed by officers other than the teachers themselves
   - *d* A survey of professional information or judgment through pencil and-paper tests

3 Techniques for Finding Factors More Minutely Related to Classroom Procedures
   - *a* A cooperative analysis of objectives of the lesson or unit
   - *b* An analysis of such aspects of teaching as questioning assigning, summarizing diagnosing pupil difficulties and so forth of the initiating of units of teacher pupil planning and execution of units of evaluating outcomes, and so forth (Observation blanks cooperatively developed check lists and similar procedures may be used)
   - *c* An analysis of stenographic reports of lessons

[8] An interesting summary of causes of failure and of methods of diagnosis is found in Chapter 18 of *The Guidance of Learning Activities* by W H Burton (New York D Appleton Century Company Inc, 1944)

d A cooperative study and evaluation of the use made of courses of study of source units, of spontaneous leads for teaching-learning situations
e A cooperative analysis of the socio-physical conditions surrounding the particular lesson sequence under scrutiny

4 Techniques for Finding Factors More Remotely Related to the Immediate Situation
a A continuing critical analysis of the presently accepted aims course of study and curriculum
b A survey of the training experience, personal background of the teaching staff
c A survey of the social and economic backgrounds of the learners
d A survey of the community (details in later chapters)
e A continuing survey of new movements in education to determine if any have guidance for the local situation
f An analysis of administrative policy and procedure a scrutiny of administrative decisions over a period of years and which relate directly to learning
g A survey of the physical plant and facilities provided

The various methods focus attention upon one or another aspect, but it must be remembered that effective teaching learning situations are integrated wholes Enough different surveys must be made and enough different types of data secured to ensure a unified picture of the whole without unwarranted emphasis on any one part

(3) *Note new departures which might be introduced into the local situation* Scientific experimentation is constantly producing new techniques in all phases of education Philosophic analysis develops new aims and policies with changed emphases on techniques Empirical procedure in the field produces still other things worthy of attention and trial New items may be teaching procedures, organization of curriculum materials, administrative procedures, in service training techniques evaluational procedures, and so forth The introduction or at least the trial of new procedures and policies is one of the most important characteristics of the dynamic field of education Supervisory leadership will constantly be suggesting the trial in local situations of new ideas for the improvement of the educational product

(4) *Select from the total picture through group discussion a list of problems, difficulties, needs State these as objectives for the improvement program* The total picture includes the evaluation of the product, the analysis of the situation, and scrutiny of new ideas in the field Certain items will be selected for long-term and for short-term attack These become the objectives Objectives may deal with any and all legitimate needs which can be met through supervisory assistance The statements of course, should be definite and concrete, indicating clearly what the aim actually is Typical errors in the statements of objectives are (1) failure to be definite, (2) confusion between the objective and the means, and (3) confusion between the objective and a statement of attitude or policy The following specific illustrations taken from actual plans may

be of assistance The form of statement may be changed or abbreviated as desired

Objectives which are broad in scope and wholly sound are [7]

To develop understanding of the theory and practice of unit organization of teaching materials
To develop understanding of the theory and practice of creative activity
To continue work on the construction or reorganization of the course of study in health (or social studies or general science or second grade activities and so forth)
To develop a more unified theory of supervision
To introduce manuscript writing into the first grade and to improve cursive writing in the other grades
To develop cooperatively an analysis sheet for use by teachers principals and supervisors in the study of instructional practice

Objectives which are less broad in scope and wholly sound are

To establish a junior first grade to meet the needs of immature children who are not sufficiently developed to profit by typical first grade work
To improve the teaching of fundamental skills of arithmetic in fifth grade
To improve the teaching of work type reading in the seventh grade
To assist teachers with the elimination of certain typical language errors found in given groups of pupils (sometimes in given groups of teachers)
To train teachers in the use of diagnostic tests in reading (or writing arithmetic and so forth) appropriate to the level involved

Objectives which are vague or indefinite as stated and which need accurate restatement are

To diagnose the specific needs of different groups and to organize remedial instruction
To improve instruction (This is the whole long time and continuous objective of all supervision)
To improve teachers in service
To reorganize the course of study
To secure more worthwhile use of textbooks
To teach pupils to think
To build character
To assist unsatisfactory teachers
To create good pupil attitude
To give pupils an enriched environment and educational experience

Objectives which are really not objectives at all but statements of policy, statements of means to be used, or statements of attitudes [8]

To encourage teachers contributions to the general improvement of instruction (This has the additional fault of vagueness While it could

[7] Objectives listed here and designated as wholly sound are drawn from situations representing different levels of development Sound means sound for the given level of insight or development in local thinking

[8] The first five items are by products not objectives They may be objectives in the minds of the leader but are not objectives for the group They will be achieved naturally through a good program based on legitimate objectives

be a desirable objective in some situations where it is peculiarly necessary to get teachers to contribute at all it would ordinarily make for clumsiness as an objective It is more easily seen as a valuable by product of a good cooperative program)

To have a more helpful program of teacher conferences group and individual (While this could be an objective it would be abstract and pointless It is best used as a means)

To establish a link between the supervisor and the teachers through common participation in activities whose purpose has been accepted by both

To give teachers experience in the processes of democratic action, to secure (or encourage) teacher participation in the solution of supervisory problems

Developing the maturity of responsibility on the part of the staff and the community in regard to the individual educational growth of each child in the public schools

To extend the use of demonstration lessons in supervision (This could be an objective only by courtesy as it is clearly a means)

To encourage and stimulate the teachers (This is vague and meaningless It could be an objective but is more likely a statement of attitude)

To keep records of visits

To make use of bulletins and supervisory activities

To give teachers credit for all contributions made (not an objective but a desirable attitude or policy)

Students often say they "cannot see why" certain of the vague, indefinite or incorrect objectives are not objectives These students should be directed to attempt to develop an explicit plan to go with the objective in question The weakness of improperly stated objectives will soon become apparent

4 *Develop a program of activity under supervisory leadership designed to improve underlying conditions and to bring about improvement in the products of learning* The problems once selected and defined, the next task becomes the cooperative organization of the actual activities of study and solution The following list indicates some of the general means available

1 Encouragement and assistance to individual teachers in carrying on individual study on general or specific problems
2 Cooperative planning of group attack upon general or specific problems

These will utilize any number of subsidiary techniques

a Conferences with individuals and small groups for the planning of any and all kinds of projects
b Series of local study groups, general or limited teachers meetings
c A local workshop with facilities and personnel available at stated times
d Extension courses summer school work, leave of absence for study or travel
e Cooperatively developed bulletins usually with references and study guides
f Experimental work, either individual or group, for the development of new materials, new evaluational devices, for try-out of materials
g Committee and study groups to examine student interests, attitudes problems, and needs
h Committee work on curriculum improvement or course of study writing

i Visiting teachers in local and outside schools according to plans devised by teachers and staff
j Visits and conferences by supervisory personnel, usually on call and for cooperatively determined purposes
k Cooperatively determined programs of directed observation and directed teaching
l Committees and study groups to examine new texts, to select texts and materials
m Exchange of teachers between schools and between systems

Detailed discussion of these will be found in Chapter XV

Special caution necessity for specific statements regarding means Many students in training and not a few supervisors fall into serious error when developing plans, that of vague generality in designating the means to be used Groups which develop plans cooperatively are less likely to make this error although many do It is quite meaningless to say that a given objective will be achieved through 'a series of meetings, "the use of bulletins," "organized demonstration teaching,' 'planning conferences," "study groups" The means must be related specifically and in detail to the definite objective The topics for meetings must be specifically stated, the books to be studied named (often with page references given), periodical articles to be studied must be listed The function of a workshop in a given program must be specified Research projects must be clearly defined with conditions controls and evaluations indicated Bulletins must be organized around given topics Methods of developing cooperative effort on any item must be outlined Many of these items cannot, of course, be specified in advance in a dynamic program but forecasts can be made

Emphasis upon specificity in describing one's procedures cannot be overemphasized, otherwise the plan is a pure verbalism Many students prone to substitute words for meanings will, when pressed on this matter, take refuge in still further abstraction One young superintendent pressed hard in discussion to state exactly and specifically how he would get a certain thing done or at least plan to get it done said 'I would require my teachers to do original thinking!' Specificity is an absolute necessity and can be achieved within a flexible dynamic program

There is no standard sequence of events in the attack upon any supervisory program One may start with a series of meetings for presentation of evidence another will use few or no meetings Bulletins may be used extensively in one plan, conferences in another Planning may come early or after certain crises have been allowed to arise Many supervisory procedures will enter into any situation The particular objective should ordinarily indicate the general line of procedure The ingenuity and ability of the personnel will determine the specific activities within the general framework

Brief descriptions of specific supervisory programs The written account of a plan or log of its development would be so extensive that lack of

space prohibits such exhibits Instructors should gather collections of plans and of logs from the field for use with students Several good diary accounts are available in periodical literature A few sharply abbreviated descriptions of the chief features of given plans are included here Note that two of these programs started directly from the evaluation of the learning products, the other two less directly but nonetheless from attention to the results being achieved by the learners

CASE 1 [9]

A Plan for the Improvement of Language Instruction in the Elementary Grades Santa Ana California

Observations and partial surveys indicated that the results being achieved by the pupils in oral and written language skills were not satisfactory The entire staff participated in a detailed analysis of results and of conditions surrounding the achievements

At the first meeting in September, attention was called briefly to the partial facts revealed the preceding spring A more adequate survey was undertaken There was placed in the hands of each teacher a bulletin entitled 'Selected Readings in Elementary English' This contained classified references on various phases of language teaching Teachers were asked to read briefly for orientation, selecting titles with specific reference to their own difficulties They were also asked to summarize later their own difficulties and needs

Based on teachers' suggestions and interviews four meetings were arranged for October and November each one discussing a problem raised by the staff Staff members, teachers and an outside expert served as chairmen

Based on the discussions in the meetings, readings, and further observations, another bulletin was issued entitled 'Samples of Natural and Profitable Situations for Speaking' Teachers were asked to check these as natural and legitimate or artificial and academic

Simultaneously a summary of a lecture on language teaching by a state department specialist was handed out

Based on their meetings, readings, and reactions to bulletins, the staff now worked out one or two record blanks and criteria for evaluation which they were to apply to the pupils' oral and written language

This cooperative derivation of the objective and organization of means to achieve it unified staff thinking From then on meetings demonstrations, and panel discussions attacked the various sub points systematically

CASE 2 [10]

A Plan for the Improvement of Reading in the Elementary Schools, Minneapolis, Minnesota

Requests for assistance in improving instruction in reading differences of opinion on objectives and techniques, and other items led to a program for the improvement of teaching reading

Objectives, techniques and outcomes were analyzed Each teacher was then

[9] Taken from materials supplied by Superintendent F A Henderson and Miss Kueneman elementary supervisor

[10] L J Brueckner and Prudence Cutright, A Technique for Measuring the Efficiency of Supervision *Journal of Educational Research*, Vol 16 (December, 1927) pp 323 331 also in a pamphlet published by the Minneapolis Public Schools

asked to prepare lessons which she thought best demonstrated her most effective teaching of work type reading Detailed records were made of materials types of teaching activity types of pupil reaction One illustration will clarify this A listing was made of the objectives teachers stated they were pursuing Analysis of the actual conduct of the lessons revealed a list of objectives which were actually being affected The list of claimed objectives and that of actual objectives did not wholly coincide Some desirable objectives of reading teaching were wholly neglected others overemphasized

A program was developed to improve items which had been neglected and to balance the teaching as a whole *First,* a series of bulletins were issued dealing directly with phases of reading upon which help had been specifically requested and upon items revealed by the initial analysis *Second* a series of demonstration lessons was held again based directly upon needs revealed by requests and by the analysis of teaching technique The city was divided into districts and teachers were expected to attend the demonstrations and discussions The lessons were taught by regular classroom teachers who volunteered Local demonstrations and discussions were held by principals and teachers in many individual buildings *Third,* a number of reading specialists such as Anderson and Buswell were brought to the city by the teachers organizations to discuss specific problems *Fourth* current literature dealing both with research and with practice was freely supplied *Fifth,* members of the Minneapolis research department gave special lecture discussions supplementing the outside lectures and covering other local problems

Evaluation was by means of a resurvey checking the same points objectives materials and methods which had been covered in initiating the program

Emphasis should be repeated here that these accounts are *general* Bulletins meetings, demonstrations, reading and study in all these programs are specific and definite Problems are clearly stated bulletins are specific references to study materials are to definite materials dealing with stated problems Demonstrations are preceded by preparation both of the lesson and of the group which is to observe Observation outlines should be in the hands of the observers and discussion should follow based directly upon the original needs which initiated the demonstration and upon the actual procedures in the lesson

The interesting specific data showing the effects of this program will be found in Chapter XVI which deals with the evaluation of supervision

CASE 4[11]

The Introduction of a Guidance Program into the Clifton Arizona, High School

Interest in a guidance program arose from several sources Parents asked questions about courses taken relation to future life work pupils asked similar questions A few criticisms and complaints indicated need for attention to guidance The superintendent and teachers were interested through summer courses and casual reading in the emphasis being placed upon follow up work done with graduates of high schools

A survey of the school and of the community to secure facts bearing upon

[11] This account prepared from materials supplied by H A Liem superintendent of schools at the time of the project

this emerging interest was the *first* step The age-grade status pupil load drop outs and failures were all stated statistically A study of those leaving school was made with reference to their success in other schools to the kinds of jobs they go into

Second, the data from the survey were presented to the school staff and further comments emerged The staff concluded that before the mechanics of a guidance program were set up it would be well to study the remote reasons and implications (This is a superior reaction and very desirable) The chairman of the Social Science Department was therefore invited, *third,* to lead a lecture-discussion on 'Social Conditions and Their Implications for Guidance' The chairman prepared a ten point discussion outline plus a few readings on the questions in the outline The group was thus prepared well in advance to understand the more subtle and remote considerations

The *fourth* step was to analyze local school conditions in the light of the background now developed together with possible local objectives The high school principal prepared a two page study guide with readings as preparation for the discussion of local conditions and objectives Out of this conference grew plans for several more detailed discussions of specific aspects of an actual guidance program The *fifth* step was a meeting on 'The Informative Phase of a Guidance Program' prepared and led by a classroom teacher who was interested in this and volunteered

[The various other characteristics and processes of a program were taken up thus]

The program then shifted to presenting this program to the community which was done through discussion of local needs background material now in possession of the teachers Panel discussions which included community leaders were used together with other typical methods of dissemination

Presentation and explanation to the student body accompanied this Student participation was prominent Students organized and carried out a 'Go to High School' campaign which involved extensive study An occupational survey of students interests was compiled

The program led into a major and vital continuing objective namely the basic reorganization of the total curriculum offerings

CASE 4[12]

The Development and Installation of a Special Curriculum for the Non Academic Pupil in a Selected Elementary School Irisno California

This was a proposed plan which might or might not be placed in operation Need for the program was based on several considerations Children came from very poor socio economic groups Thirty five nationalities were represented The curriculum and teaching procedures had been for years unduly conservative obviously unfitted to the children Truancy and indifference were marked, disciplinary situations numerous A few hit or miss adjustments had been attempted

An analysis was proposed to cover percentage of failure, percentage of retardation, amount of ADA lost, intelligence levels numbers and types of disciplinary situations, case studies of selected students needing assistance Data were to be summarized and presented to the faculty in charts and graphs with descriptive statements A list of five penetrating questions was distributed well in advance of the meeting proportion of failures deemed inevitable? Located in given strata or areas of the school? Causes of these and other maladjustments?

[12] Account based on material supplied by Kenneth R Brown classroom teacher

Might the curriculum be at fault? Would we be willing to study the relation between the type of learner and the curriculum?

The leader hoped to have a study of the objective of the school emerge together with a question as to the individual teacher's part. Excellent references on the problems of youth together with others on adjustment programs being developed in other places were provided.

Through a series of meetings on problems selected by the group out of preceding discussions and organized around a set of study questions developed in advance of the meeting it was hoped that a number of basic problems would be considered leading to a comprehensive and cooperative attack upon curriculum and teaching technique. Problems which might emerge were causes of failure, maturity levels and learning, relation of materials and methods to individual needs and interests, pupil participation in planning, 'progressive' methods of teaching, type of discipline, classroom control with diverse activities and others.

(5) *Evaluate the effectiveness of the program in the light of accepted objectives, by reputable means of appraisal, to determine what improvement has been achieved.* The plan should set forth what criteria and instruments of appraisal will be used. Some of these will be well-known instruments which are easily available to all. Others will be instruments devised by those operating the program as a part of the program itself. Evaluation is a constant and inherent part of any teaching or supervisory activity. The common means of appraisal are set forth in Chapter VI, specific appraisals of given programs are reviewed in Chapter XVI.

The characteristics of an acceptable supervisory plan. The details of planning will differ widely with situations and groups. Certain common general aspects should appear regardless of location or of the group doing the planning.

1. A statement, lengthy or brief as the case may be, of the situation out of which the program grew, of the survey techniques used, of the needs and problems revealed.
2. A set of objectives, clearly stated and definite enough to be achievable. Some will be continuing objectives, others new. All should be integrated with the common long-time objectives of all education.
3. An outline of the possible, and very probable means likely to be used in attaining the objectives. The provision for flexibility and continuous readjustment should be indicated.
4. An outline of the criteria, checks, or other evaluational procedures to be used in determining the degree of success achieved by the program.

The coordination of plans within a system. The individual building is increasingly recognized as the effective unit for educational effort. The system as a whole, however, has certain over-all general needs. A problem in coordination arises.

Line-and-staff organization in small cities usually provides for coördination through the superintendent's office or through an assistant superintendent in charge of supervision. Coordination in larger cities is accomplished through a central council, or a superintendent's cabinet, or a committee set up for that purpose. The central council or cabinet may

include all supervisors and principals, together with representative teachers in systems small enough so that the group will not be unwieldy Central councils and committees in larger systems will probably be representative bodies with all groups sending elected delegates to the meetings

Coordination under democratic organization will be through discussion in a series of local committees doing the planning which are in turn represented in a central committee Cooperative group decisions are characteristic here Principles and general processes were set forth in Chapter III

Adaptation of planning and leadership to size of system, type of staff, and so forth The foregoing discussion has been in terms of systems possessing requisite time, money, and staff Obviously, adaptations must be made when time and staff are insufficient Something can be done in every situation, and handicaps should not be permitted to halt supervision Students who are principals or superintendents in very small cities often ask How can I do any of these things when I teach all day without even a single period for administration or supervision? This question is all too often presented as an indirect defense for a do nothing policy School officers who do present it and who sincerely desire to carry on some supervision should be encouraged to begin just as the staff of a large system would begin, namely by diagnosis of the situation Careful analysis will doubtless reveal that even in the most crowded program some supervision is possible If hard pressed and harassed superintendents and principals do nothing more than inspire the staff to read and discuss one good book a semester, they have accomplished something If they set aside one hour a week for conference, if they can answer only a few questions for a teacher, if they can dismiss a class for fifteen minutes to enable someone to visit a good situation, if they can issue a one-page bulletin occasionally, they are to be highly commended

Objections to planning Objections are raised from time to time against planning Certain of these are trivial and silly, others are based on honest misunderstandings and false premises, still others are legitimate and must be answered or explained

First, it is sometimes said that planning takes too much time and work A given system of planning could be so cumbersome, so unnecessarily detailed, so arbitrarily imposed from above that it does take too much time and energy The criticism here is not of planning as a principle but of the persons doing the planning and of their general philosophy Administrative and clerical details in some systems are so onerous that no time remains for planning This is equivalent to saying that the supervisors have to do so much other work that they cannot do supervision! Criticism again rests with persons and general philosophies and not with the planning principle An unqualified statement that planning takes too much time and energy is merely a silly statement Leadership in

planning and participating in planning are just what the entire staff is paid to do

A *second* objection states that planning is by nature undemocratic This is such futile nonsense that it would not be discussed here except that it is raised by individuals who are quite honest in their ignorance of both planning and democracy What is really meant, doubtless, is that certain given cases of planning have been carried on undemocratically The truth is that the heart of modern democratic procedure in or out of school is the planning of all together for what needs to be done Genuine participation of all types of workers in formulating plans is an essential of democracy Principles and techniques have been presented in Chapters II and III

An objection often stated separately (but which is actually a part of the one just stated lack of democracy) is that a plan stifles initiative and creative effort An arbitrary plan predetermined by one group and imposed upon another will effectively discourage initiative responsibility, and creative contribution The fault lies again with the theory and practice of planning held by the given administration Democratic planning is highly effective in stimulating initiative, the assumption of responsibility and creative contribution

Third, it is said that each pupil, each teacher each situation is unique individual, different We cannot, therefore ever anticipate the needs of a situation or plan in advance the means of meeting the needs Explanations are necessary here Great emphasis has been placed latterly upon the uniqueness of persons and of situations upon adapting to the not-elsewhere duplicated nature of given persons and situations This represents a valuable counterattack upon the authoritarian administration and the lock step educational methods of the older school Carried to extremes it is as detrimental as the extremes of authoritarianism and lock step procedure Uniqueness of persons and situations is one part of the picture, commonality is another Planning takes account of both Competent planning by trained personnel includes first diagnosis of specific situations and the organization of means fitted not vaguely and in general but definitely to the situation Planning involves second, attention to needs and problems which are common to many situations recurrent and highly similar from situation to situation Voluminous evidence is available showing both the uniqueness and the recurrent similarity of educational problems

Planning in advance which is based squarely upon locally derived facts enlightened by general knowledge of similar situations, which is flexible and susceptible to replanning constantly, is possible and necessary

The *fourth* objection is extremely important and summarizes the sensible portions of preceding objections The statement of 'definite objectives' and the organization of 'specific and detailed' procedures

violates, it is said, the whole nature of modern democratic procedure and of modern learning The writer has no hesitation in discussing "definite" objectives and 'specific' means The argument turns squarely upon what is meant by those words Definite objectives stated in unequivocal language are necessary wherever sensible persons work together The planning of understandable procedures is similarly necessary To proceed otherwise results solely and only in muddle confusion chaos

The terms "definite" and "specifically planned' do not mean, as interpreted by some "fixed' 'unchanging, 'imposed' A definite and specific plan is not operated arbitrarily as planned in the beginning Two essential points must be recalled *First*, the "definite' objectives are derived democratically by the group from the actual situation in which they are working *Second*, planning is always continuous, flexible, susceptible to change as situations develop Planning is evolutionary, emergent, growing apace with the situation within which it is planned Definite objectives and specified means are merely the simplest necessities of common sense they cannot be inherently undemocratic The emphasis throughout this chapter is not upon the *plan*, nor upon the verb *planned*, but upon *planning*

A *fifth* objection states that if emphasis is placed on one aspect (or two or three) of a teaching learning situation the others will suffer Supervision may for instance focus upon the improvement of work type reading whereupon arithmetic or spelling will suffer Attention to developing social moral traits in pupils may result in neglect in the development of tool skills A major program of curriculum construction may cause teachers to neglect their everyday teaching their health, and so forth

The *first* answer is a simple one there is no intention to neglect any phase of the situation while giving special emphasis to another Supervisory procedures which increasingly include all workers and which study unified situations avoid the criticism *Second* there is considerable experimental data available in the literature indicating that special attention to a special need does not detract from the total program Good programs of special emphasis do, in fact often increase efficiency in the total program

Discussion Questions

1 Tell in detail of any situations within your experience where supervision was not planned Give the local conditions reasons, and your suggestions for improvement

Oral Exercises

The two exercises following are among the most important in the book They prepare directly for the written exercise which follows which is itself a fundamental test of the students understanding of the course thus far One or two class periods may well be devoted to this if time permits

1 Each student should formulate and bring to class two or three typical supervisory objectives Preferably these should be derived from the actual situations in which the students are now working or have worked One after another, these objectives should be analyzed and evaluated by the class Scope, definiteness, clarity and so forth should be judged Use the materials in the chapter as criteria

2 A typical objective formulated by a student and evaluated by the group may be selected and written on the board The beginnings of a program may be developed through class discussion much as an actual group in the field would formulate its program Two or three objectives may be treated sketchily to show the diversity of possible attack Varying suggestions for the same objective should be encouraged, since there is no one right procedure for a given problem All that should be required is that suggestions be natural and appropriate coherent, and practicable

Written Exercise

Ample time should be allowed after class discussion for the formulation of a plan which would be sensible for a given situation

Students who have operated a plan in a previous position or who are now operating a plan in a real situation should be encouraged to bring in their plans for analysis and evaluation The value of these for those who have not yet operated a plan is great

1 Take any one supervisory objective preferably one growing out of the situation where you work and develop the possible and very probable means which might be employed to achieve the objective

The plan need not be presented in complete detail but must be developed in sufficient detail to demonstrate the students understanding of the proper adjustment of means to objectives of the use of democratic techniques in deriving a plan through group participation

(Students who are not now engaged in supervisory work or who have never engaged in it will perforce construct a theoretical plan This is quite satisfactory and, in fact constitutes an excellent test of ability to envisage a situation and to anticipate it mentally)

Suggested Readings

The well known standard texts and many of the yearbooks on supervision contain a chapter on planning supervisory activities None is as detailed as the present chapter but each usually contains differing emphases on the various principles and procedures hence should be consulted in connection with this chapter and particularly while preparing the written exercise above

The periodical literature very rarely contains accounts of planning for specific situations but the materials appearing are usually helpful

The small number of references of all kinds bearing upon this topic and their easy availability make unnecessary a listed bibliography here

Collection of Plans

The single most valuable aid with this problem which the writer has found is to make over the years a collection of plans and logs of plans both from real situations and as produced by students in previous classes Consulted by students and supervisors in service, they represent actuality they introduce a variety of attacks, they illustrate the large number of techniques available, they illustrate the ingenuity of various leaders and groups in meeting their unique problems

Part II

STUDYING THE SETTING FOR LEARNING

V

Determining the Objectives of Education

The importance of objectives There are very few problems in the field of education that can be solved without reference, sooner or later, to the objectives of education The curriculum for example, is not an end in itself, but a means to an end, and starts logically with a consideration of the thing for which we strive Teaching methods are always influenced by what is to be taught and by what outcomes are desired The qualities that mark the successful teacher, the nature of the materials of instruction, and the conditions necessary for efficiency in learning, are all more or less subordinate to the purposes of education Specialists in measurement have only recently been forced to revise their thinking about measurement to take into account some of the less frequently measured outcomes of school training such as attitudes individual adjustment, and integration of personality Supervision is no exception Both the program and its evaluation are given direction by the purposes of education In the last analysis, the means methods and materials of supervision can be chosen and evaluated only with reference to the purposes of education It would be difficult to overemphasize the importance of clearly defined and validated needs and objectives as guides to educational activities

Man is a goal-seeking animal He does not ordinarily participate in activity merely for the sake of activity but rather for fun, to learn or to improve his lot These goal seeking activities of man are in evidence all about us The educational program is only another example of his striving for some of the things that he considers essential to his own well being or happiness To be effective the program must lead toward definite goals

In the absence of stated objectives, one always runs the risk of having activity that leads in directions not sought or in conflict with current pupil needs Without such objectives, much activity, valuable at one time, would persist too long after it has served its purpose In time something else may come to be desired Better means of achieving old ends may also be discovered To ascertain the relative effectiveness of new and old means they must be compared under different conditions, for different persons, and for the different purposes, which they purport

to serve In evaluating educational programs and proposing new ones, as we shall in the pages to follow, we must have objectives as referral points in the process of discovering and validating worth-while educational activity This applies to the choice of learning experiences, means, methods, personnel, and all other aspects of the improvement program

Those who have the responsibility for formulating the objectives of a school program as a whole, or of parts thereof—such as for different grade, areas of learning, and groups of pupils—have a great responsibility Schools are the agents of society, created to transmit and improve the cultural patterns, and to guide the development of competencies, and ideals deemed essential to the well-being of its members in their present and future responsibilities If the school is to contribute as effectively as it should to the larger program of individual social, and community *betterment to which it is hoped it will, those entrusted with the direction* of its program must be informed about the goals, immediate and remote, to be attained To accomplish what should be accomplished, those responsible for the school's program must be leaders in the broadest sense of the term Unfortunately however, too many of those charged with this responsibility are not leaders but routine workers merely performing the activities ordinarily associated with their assignments, with very little thought about the goals to be attained Under such conditions there is *much aimless wandering about If the purposes for which the schools* exist are to be realized, supervisors, teachers, administrators, and in a measure the pupils too, must envisage the broader purposes of education

The determination of the objectives of education is a very complex activity demanding the very best efforts of many persons Most teachers, supervisors and administrators will not themselves engage in extensive studies and researches to determine the major or more remote purposes of education, they must, however, be intelligent about the published statements of objectives and critically alert to the advantages and limitations of the various methods commonly used in deriving them The worker who relies upon his own opinion upon tradition or upon uncritical methods of deriving the objectives of education, places himself in a position no longer considered defensible by careful thinkers in this field The task of setting forth the objectives of the different schools, areas of development, and the divisions of the school system is one of immense responsibility, and if it is to be performed with any appreciable amount of expertness, those responsible for this work will need to be familiar with the techniques of determining educational needs and objectives and with the limitations and possibilities of each approach to the problem

Social Significance of Objectives Objectives are important not merely for education but also for the system in which the school operates The objectives of education are affected profoundly by the civilization surrounding the school and in turn affect that civilization Man has lived through two civilizations and is now entering upon a third The first

was based on the natural arts of hunting, trapping, and fishing, the second on the laborious arts of agriculture, breeding, and handicrafts In our time we are entering an industrial civilization of technology, machinery, and science At the first stages of development there were few if any demands for formal education Informal education in the home was adequate At the second level of the development it became necessary to take steps to conserve the social heritage and to help youth adapt itself to the social situation that existed This was done through more or less systematic programs of instruction in which the skills and practices of handicrafts and arts were taught and essential folklore, customs, and traditions were handed down The school was developed to supplement the work of other institutions—the home, the church and industry The very life of the group, the preservation of its possessions, and the advancement of its interests required the selective transmission of its accumulated knowledges ideals and philosophies to the oncoming generations

In recent times the functions of the school have been greatly broadened In the simpler civilizations that preceded the present one the school played a relatively minor rôle in the educational process During the past century and a half of industrial civilization the school has developed, however, into a major social institution The needs of this complex society led to the expanding of education to include all children, and more recently adults To meet the demands growing out of various social needs various forms of social and vocational education were devised And as time has passed, society has placed even greater responsibility on the school, extending its responsibilities to include many functions previously assumed by the home the church, and other agencies This has been true particularly in the field of character, health, and recreational training

The situation has now developed where it is being recognized more and more by those in charge of education that there is serious need of considering the extent to which the school is now meeting the extensive demands made upon it in a rapidly changing social order

SECTION 1

TYPES OF OBJECTIVES

There are many different kinds of objectives There are many different kinds of objectives depending upon how one views them Objectives may be *stated* or *inferred,* they may be *long range* or *immediate, concrete* or *abstract, general* or *specific individual* or *group,* they may be those sought by *pupils, teachers, administrators, parents* or other *adult* members of the community, they may be *day to-day* objectives, large *unit* or *activity* objectives, *grade* objectives, *maturity-level* objectives, *subject* objectives, *areas-of-experience* objectives, *over-all school* objectives, or

broad *social* objectives, they may also be *course-of-study* objectives, and *on-the-spot* teaching objectives

To get clearly in mind the subject matter of this chapter we would like to comment briefly upon certain of the distinctions involved in these different types of objectives In the discussion of objectives, considerable confusion has arisen out of failures to specify the particular kinds of objectives under consideration

Stated and inferred objectives Objectives are not always stated, sometimes they have to be inferred from the observation of the behavior of those concerned

Long-range and immediate objectives These are relative terms Goals that can be attained in a few minutes, hours or days are usually referred to as immediate, those that take longer spans of time are customarily referred to as remote or long-range objectives Accordingly we speak of immediate teaching objectives on the one hand and long-range societal objectives on the other

Concrete and abstract objectives One's goal may be the attainment of some very tangible object, such as to spell a certain specified list of words, to construct a drainage dam, or to calculate the height of a tower through triangulation Objectives such as these are ordinarily referred to as concrete When one strives for some quality that may characterize or arise from any object or group of objects rather than for the objects themselves one is said to seek an abstract value Happiness, fortune fame health, wealth, security, mental balance, truth morality, poise, and the like are usually referred to as abstract values

General and specific objectives General objectives are those applying to a class of objects as a whole, such as the values to be attained from participation in certain types of activities the outcomes sought in elementary school education, or the remote goals of life and education Specific objectives are more restricted in their application and refer to limited aspects of the school program such as particular aspects of activities, details of the learning process, and precisely defined immediate objectives

Individual and group objectives Objectives may be those of or for a particular individual such as Mary John, or James, or of/for groups of individuals such as those of/for ninth-grade girls, of/for a group of first-graders, and of/for returning veterans

Objectives of and for pupils Objectives may be those of the pupil or of others for him Teachers, supervisors, administrators, parents, and other members of the community will state needs and set objectives for pupils, we hope that pupil purposing will be anticipated and considered a part of discovering needs and setting objectives

Day to day, unit, grade, course, subject, and school objectives Most people are fairly well acquainted with these types of objectives They represent the types of objectives that grow out of the conventional school

program, curriculum, and administrative organization Detailed illustrations of these will be given later

Course-of-study and on the spot learning and teaching objectives The objectives enumerated in courses of study for different units, grades subjects, schools, and divisions of the school system are generalized objectives based upon the common needs of pupils, on-the spot learning and teaching objectives are presumably based upon the needs of individual pupils in specific learning and teaching situations Both types of purposes serve a unique and distinctive function

The list given above is somewhat detailed but it has been offered in the form here presented to clarify certain distinctions commonly lost in shorter statements One may, if he chooses, group these many types of objectives into two roughly related groups (as is frequently done), namely (1) long-range general, abstract, societal goals and (2) immediate, concrete specific learning and teaching objectives At times we shall do just this in the materials to follow Long lists of categories and distinctions are difficult to keep in mind shorter lists frequently present extreme oversimplifications of otherwise very complex phenomena

Educational objectives may be considered from the point of view of the program as a whole or from the point of view of significant parts The classroom teacher directing the learning activities of third-grade pupils in art for example, while concerned with the educational program as a whole, is more immediately concerned with those values that he hopes may arise from the art experiences provided the pupils under his direction The same comment might be made with reference to all other officials who have responsibility not for the whole program but for parts of it—supervisors of special subjects or activities, grade or high-school principals, and consultants of one sort or another The superintendent of schools on the other hand will need to be especially concerned with the program as a whole and the interrelatedness of its several parts This same statement will hold true for other generalists in the field of education The fundamental understandings in this area are very similar when considered from either point of view, but the interests of the persons involved and the approaches to objectives will be different The teacher will be primarily concerned with the needs of the pupils under his direction and in setting goals commensurate with their development and the area of experience in which he offers leadership The generalist will be chiefly concerned with the consistency and the coherence of the program as a whole, and especially so with the sequence of objectives and their inclusiveness We wish in the materials to follow to keep in mind these two somewhat different angles from which objectives may be viewed

The importance of personalized objectives The tendency in discussions of the program as a whole, and even of parts of the program, is to think in highly generalized terms The fact that these more remote

generalized objectives are important has been frequently emphasized We want here now, however, to emphasize the fact that good teaching also presupposes highly individualized and personalized objectives They are individualized in that they may differ from pupil to pupil and personalized in the sense that they belong to the pupil—that is, they seem important to him and lead to desired goals as far as he is concerned Supervisors and teachers have objectives, but so do pupils The purpose of supervision is to help pupils realize worthwhile objectives, and in so doing help them, through intelligent leadership, to grow in desirable ways Such an approach to education demands special attention to individual interests, needs, and capacities

Every pupil by the time that he reaches school has some conception of himself, what he likes to do, and what he wants to be Princess Elizabeth said, when asked what she would like to be that she would like to be a horse There are many studies of what children do and would like to do Illustrations of children's interests and activities will be given later in this chapter Ordinarily the new type of personalized objectives is expressed in terms of what pupils would like to be and do rather than in terms of "traits" and the mental prerequisites to successful performance The latter way of stating objectives is generally restricted to adult modes of thinking

Levels of objectives The levels of objectives may be stated in terms of either the pupil's development or the school's program[1] We have chosen here in agreement with common practice to list the levels of objectives in terms of the program Accordingly in considering the program as a whole, we would like to recognize four levels of objectives

1 Unit objectives
2 Grade objectives
3 Course and subject objectives
4 The broad social objectives of school and society

Five levels are given by Thompson which may safely be reduced to four[2]

1 The remote general all inclusive purposes or objectives of society (insofar as society can be thought of as having objectives) and hence the remote general aims or purposes of education
2 The general but more definite social purposes or objectives of given social groups
3 The teacher's purposes or objectives
4 The pupil's purposes or objectives

[1] W H Burton *The Guidance of Learning Activities* (New York D Appleton Century Company, Inc, 1944) Pages 266 276 contain a somewhat detailed statement on levels of objectives with illustrations See also brief statement of definitions with illustrations pp 91 94

[2] Merrit M Thompson The Levels of Objectives in Education *Harvard Educational Review*, Vol 13 (May 1943), pp 196 211

This listing is more functional than the first one which, as stated, reflects common practice with its emphasis upon subject-matter objectives

It is possible to state these levels in greater detail, that is, recognizing more levels, but the four levels here given would seem adequate for the purposes of this discussion

Objectives may be stated in different forms The several levels of objectives may be stated in any one of the following forms

1 As desired behavior ability to do or performance
2 As the mental controls over behavior
3 As abstract values to be attained
4 As qualities of the person
5 As problems to be solved

1 *Illustrative statements of objectives stated as desired behavior* Objectives stated in terms of desired behavior or the ability to perform various activities may be expressed in terms either of specific activities or categories of activities The objectives quoted on page 154 from the Florida state course of study in textiles and clothing are stated in terms of problems or questions which imply things to be done the objectives quoted on page 163 from Bobbitt are stated in terms of certain major categories into which the major activities of life may be grouped Other illustrations of objectives stated in terms of activities are item 6 of the Dayton course of study for the first grade item 2 of the Santa Barbara course of study in music and item 1 of the Kelliher-Bridgman course in personal and social living

2 *Illustrative statements of objectives stated as the mental controls over behavior* There are many of these controls They are usually expressed as knowledges skills ideals attitudes interests appreciations, and the like The objectives quoted on pages 155-158 from Burton's statement of the objectives for a unit on colonial life are stated in terms of the mental controls over behavior understandings, appreciations, attitudes specific facts and skills The items quoted on page 158 from the objectives of science instruction in the Wisconsin Laboratory School all involve important skills understandings and attitudes The items themselves appear to be stated as abilities to do various things There are many illustrations of objectives stated as desired feelings, interests attitudes ideals and appreciations in the lists of objectives quoted on pages 155-164 Items 1, 2, 3, 4, 5, 8, and 9 of the Dayton course of study for the first grade, item 1, of the Santa Barbara course of music, items 1 and 6 of the objectives of the Kelliher Bridgman course in personal and social living, and items 3, 4, 5, and 6 of the list of general objectives enumerated by the Commission on the Relation of School and College fall in this category

3 *Illustrative statements of objectives stated as abstract values to be achieved* The remote purposes of education are frequently stated in terms of abstract values of one sort or another The statements of

Spencer, Herbart, and Thorndike quoted on page 160 are expressed in terms of abstract value of the sort here referred to There are many objectives of this sort in the statement of purposes by the Educational Policies Commission, quoted on pages 161-163, for example items 1 and 3 of the general list and many of the items in the more detailed lists Items 6, 7, 8, 9 and 10 of the Virginia Curriculum are of this sort

4 *Illustrative statements of objectives stated as qualities of the person* This form of statement is not employed as generally now as formerly By rewording, the following items might be made to conform to this form Courteousness (item 7, Dayton course of study for the first grade p 19), creativeness (item 4, Santa Barbara course in music, p 19), self-assurance (item A 2, The Needs of Adolescents in the Basic Aspects of Living), and, from the Educational Policies Commission's listing, character (item A 13), cooperativeness (items B, C) judgment (item C 8), efficiency (item C 9) These may also be looked upon as abstract values referred to above, or as ideals—one of the mental controls over behavior

5 *Illustrative statements of objectives stated as problems to be solved* The problem form of statement is not very well illustrated in the lists of illustrative objectives quoted here, but the unit objective quoted from the Florida state course on textiles and clothing, page 154, is of this sort it also implies objectives stated as desired behavior already referred to If the reader will consult these sources he will find many other objectives stated as problems The illustrative materials from Bragonier and Mooney reproduced on pages 165, 167 are of this problem type

Illustrative Statements of Objectives To remind the reader of what objectives are really like and to add to the concreteness of the discussion to follow, we are providing below one statement or more illustrating the character of each of the above named types of objectives We shall have occasion to refer frequently to these statements in the discussion to follow It is suggested that the reader examine them with some care

1 *Unit objectives* The Florida State Department of Education states the objective of Unit I of an advanced course in textiles and clothing as follows [3]

How can I select clothes successfully?

- A What clothes are suitable for me?
  - 1 What colors shall I wear?
    - *a* What colors suit me as an individual?
    - *b* What colors suit the use to which special garments are to be put?
  - 2 What lines are the most complimentary to me?
  - 3 What styles are most becoming?
- B What fabrics are good choices for me?
  - 1 How are fabrics made? What should I know about fibers, weaves, widths, dyes and special finishes?
  - 2 What fabrics are suited to my usage?

[3] A Wartime Program in Home Economics Education Bulletin No 45 (Tallahassee, Fla State Department of Education, September, 1943) pp 110 111

a What common fabrics might be selected?
b What new fabrics might be suitable?

C What economic considerations will influence my choice?
1 What do I need to know about prices, restrictions, and such buying guides as labels and standards?
2 What clothing can I afford to buy?
a What clothing do I have on hand?
b What clothing do I need during the coming year?

Burton[4] states the outcomes achieved during a unit in colonial life as listed below. The original objectives are clearly implied.

OUTCOMES (ON A 5B LEVEL)

A *Understandings that*
1 The nation the advantages of which we enjoy was started by people who struggled with wilderness and built self supporting democratic communities across the continent
2 The red man's continent was one of vast forests, wide plains, deserts and mountains—full of resources that had not been utilized by the Indians
3 White men came to explore and settle the continent for such purposes as to spread religious teaching to attain riches through the discovery of precious metals, trade with the Indians or acquisition of unclaimed land to establish homes in a land where the type of worship was not dictated to escape from besetting problems in their old homes and to build a new life, and to satisfy love of adventure and free life—in short to obtain health happiness and good fortune
4 Topography climate, native animals and vegetation, attitude of the Indians toward the settlers the character of the people and the purpose of its settlement affected the manner of living and the success of the various pioneer communities
5 The howling wilderness of the continent was fraught with many and difficult problems which the pioneer had to solve largely through his own resourcefulness and courage
6 The early colonizers brought to America the English language and laws, European traditions and religion and a knowledge of how to utilize the natural resources to live in a more civilized or advanced way than the Indians
7 The Indians were gradually driven back and overwhelmed by the white man
8 That such qualities as courage self-reliance, imagination and willingness to work steadily and hard characterize the pioneer
9 The explorers hunters trappers and traders preceded the settlers into the wilderness

From 1607 to 1890 the ways of living were much the same in every new settlement—simple, rough and generally dangerous. The ways of living in New England between 1620 and 1700 were similar to the ways in Pennsylvania between 1720 and 1850 and to those

[4] William H. Burton, The Guidance of Major Specialized Learning Activities Within the Total Learning Activity (a pamphlet published by the author, Cambridge Mass., 1944) pp. 173-178.

in the northern woodlands as late as 1890 The frontier gradually moved west Log cabins were first located at Jamestown—then Plymouth While they were being replaced by better larger frame buildings migrators were building them farther out in the wilderness (*Editorial note* Evidence indicates that log cabins were not extensively used in New England settlements)

10 Pioneers always looked for rivers and valleys to give them the easiest way of traveling Trading posts and forts, which grew into cities were located along or at the fork of waterways

11 While the pioneers did not settle this country with the determination to found a nation apart from the mother country later events caused the colonies to go into war in order to gain independence and carve out their own governmental destiny

12 The pioneers set up as a guiding governmental principle ideals of good democratic living They are expressed in the Preamble to the Constitution

13 The fundamental needs of all people are food clothing and shelter

B *Appreciation of*

1 Colonial and pioneer life as an example of adaptation of life to physical and social conditions

2 The high ideals that guided the colonists in forming a new government

3 The sterling qualities of the pioneer—his courage hardy endurance resourcefulness and service (A few pioneers manifested the opposite characteristics)

4 The influence of the pioneer on our present ways of living

5 The quaintness and charm of such colonial heirlooms as dresser recipes tintypes samplers quilts utensils rugs furniture dishes and so on

6 The comforts and conveniences of today as compared with those of the pioneer

7 Beautiful pictures depicting colonial and pioneer life

8 The necessity of using wisely the vast resources of our country

C *Attitudes*

1 The pleasure and satisfaction derived from contributing to a social enterprise The satisfyingness of tolerance consideration cooperation and helpfulness toward fellow workers (If dramatic play is to be satisfying these attitudes have to be established)

2 Sincerity in forming good work health reading and language habits

3 Tenaciousness in utilizing a variety of materials in studying a problem

4 Open mindedness in verifying opinions or statements

D *Specific Facts and Skills*

1 Learned names location and significant characteristics of early settlements

Most of the children through discussion, research work and continual contact with the time line had firmly fixed in their minds certain facts [The list is here omitted]

2 Learned much information concerning the life and problems of early settlers in answer to proposed questions

3 Learned processes involved in cloth making, soap-making, candle making skin-tanning, food preservation sugar making, wood carving quilt and rug making
4 Practiced using reference material books, maps, and encyclopedia Used indices tables of contents, card files, and dictionaries
5 Practiced making oral reports extemporaneous and prepared
6 Practiced evaluating materials and in making and taking constructive criticisms
7 Practiced English composition—improvement in punctuation, margin indentations and use of capitals
8 Practiced correct forms in letter writing
9 Practiced using tools for construction
10 Practiced washing carding spinning and weaving wool
11 Used wall maps and made our maps
12 Practiced using crayolas water colors and calcimine in expression of ideas
13 Learned needed spelling words
14 Practiced to improve definite handwriting skills
15 Practiced measuring yards feet and inches figuring cups pints quarts and gallons and computing
16 Computed arithmetically the number of years between 'then and now' in connection with important happenings the ages of leaders at the time of many events such as the age of Daniel Boone when he killed his first bear
17 Learned songs of colonial and pioneer life
18 In addition the following songs were enjoyed
'Billy Boy' —*Music Hour II* p 112
The Frontiers —*Music Hour II* p 104
Turkey in the Straw —*Music Hour II* p 147
Pop Goes the Weasel —*Music Hour II* p 147
Daniel Boone —*Folk and Fun* p 19
"Pioneer —*Intermediate Music* p 104
'Oh Susanna —*Music Hour II* p 94
19 Learned colonial and pioneer dances
20 Increased skill in
I Reading
A For information
1 Using reference books efficiently
a Using a table of contents and index
b Skimming—learning to read just that part of the page, chapter or book which answers the question
2 Organizing material read
B For pleasure
1 Choosing from available selection and reading a variety of materials such as stories poetry travel, science, biography, and history
C With an enlarged vocabulary
II Carrying on a discussion
A Making thoughtful contributions
B Listening courteously
C Evaluating the information given
D Drawing conclusions
III Planning and attacking new problems
IV Self expression through language music bodily rhythm and manual activities
1 Spelling words needed in written work

VI Solving arithmetical problems that arise and computing with measurement and figures
VII Using a variety of materials in solving a problem as, maps globes dictionary books visual aids and museum pieces

2 *Illustrations of grade objectives* Two illustrations of grade objectives are given below

The objectives for science, grades 7 and 8, prepared by Lynda Weber and taken from the University of Wisconsin "Laboratory School Report" [5]

1 Learning how to read purposefully
2 Learning to express oneself clearly concisely, and accurately both in written form and orally
3 Learning the scientific method of finding a solution to a problem
4 Learning to recognize reliable source materials
5 Learning to work together in a class project
6 Learning to establish good habits of study
7 Learning to follow directions

These are objectives also of wider areas than the grades designated

After pointing out that by the end of the first grade the child should attain certain very definite goals, the Dayton course of study for the first grade enumerates the following objectives for the social studies [6]

1 An appreciation of the work of others father mother farmer carpenter etc
2 A feeling of responsibility in caring for pets, tools, and materials, clothing, home, school and neighborhood property
3 A pride in work well done
4 A realization of the value of neatness and orderliness
5 A respect for the rights and privileges of others
6 The ability to work and play harmoniously with others
7 Courtesy and consideration for others
8 A desire to know more about the world in which we live
9 A realization that many books contain useful and desired information
10 An enriched vocabulary

Besides these outcomes more specific objectives are listed for each of the several units of which the course is composed

3 *Illustrative subject or course objectives* Many attempts have been made to list the objectives for the various school subjects, courses, and areas of experience

The *Curriculum Handbook* of the Developmental Music Curriculum of the Santa Barbara Schools lists the objectives of music as follows [7]

1 To develop a love for and appreciation of music
2 To develop the power to sing play and listen intelligently according to the pupil's individual interests and ability

[5] Lynda Weber, Laboratory School Report (Madison, Wis., University of Wisconsin, 1945)

[6] Ida O Rudy and others A Suggestive Course of Study for the First Grade *Curriculum Bulletin*, No 1 (Dayton Ohio Board of Education 1931) pp 64 66

[7] Developmental Music Curriculum, *Building Power in the Skills*, A Curriculum Handbook (Santa Barbara, Calif Santa Barbara Schools), p v

3 To develop the emotional nature of the child and guide his impulses into worthwhile activities
4 To develop the power to create and respond to the environment

The Louisiana course of study in science for the elementary schools states the objectives of science that it is hoped will be constantly in the minds of teachers as science activities are being directed as [8]

1 To develop an understanding and appreciation of natural elements in the environment
2 To develop in the child the ability to observe carefully and thoroughly, and the habit of practicing such observation
3 To develop the scientific attitude in the children

Kelhler and Bridgman list the objectives of a course in personal and social living as certain behavior reactions, as follows [9]

1 Appreciates that successful family life is the result of conscious effort and intelligent behavior
2 Formulates generalizations and applies them to this area of personal and family living
3 Understands the relationship of the individual and his family to the community in which they live
4 Participates effectively in group discussion
5 Realizes that desirable character cannot be developed unless people live together like in interest in one another maintain their own ideals and respect the personalities of others
6 Appreciates that if one has a sound healthy philosophy of life, though he sometimes loses his perspective he will eventually see things in their true proportion

The Committee on the Function of Science in General Education of the Progressive Education Association stated the science needs of adolescent youth as follows [10]

THE NEEDS OF ADOLESCENTS IN THE BASIC ASPECTS OF LIVING

A The needs of adolescents in the area of personal living
  1 Personal health
  2 Self assurance
  3 A satisfying world picture and a workable philosophy of life
  4 A range of personal interests
  5 Esthetic satisfactions
B The needs of adolescents in immediate personal social relationships
  1 The need for increasing mature relationships in home and family life
  2 The need for successful and increasingly mature relationships with age mates of both sexes
  3 Sex education

[8] Revised Course of Study in Science for the Elementary Schools Bulletin No 165 (Baton Rouge La State Department of Education 1931) p 8

[9] Alice V Kelhler and Ralph P Bridgman 'Family Relationships in the Secondary Curriculum *Parent Education*, Vol 4 (April 1938) pp 187 195

[10] Progressive Education Association *Science in General Education*, Report of the Committee on the Function of Science in General Education (New York D Appleton Century Company Inc 1938)

C The needs of adolescents in social civic relationships
  1 The school and the local community
  2 The regional survey
  3 The wider community
D The needs of adolescents in economic relationships
  1 The need for emotional assurance of progress toward adult status
  2 The need for guidance in choosing an occupation and for vocational preparation
  3 The need for wise selection and use of goods and services
  4 The need for effective action in solving basic economic problems

The items in group C are very clumsily stated

4 *Some illustrative statements of remote school and societal objectives*

Spencer[11] epitomized the many purposes of education as "complete living"

Herbart[12] stressed the development of "many sided interests, so that the individual might go on into the world equipped with interests and abilities in many lines"

Thorndike[13] emphasizes the happiness of man and mankind. Dewey in a more extended statement says[14]

> The aim is to secure a progressive development of capacities having due regard for individual differences and including a physical basis of vigorous health refined esthetic taste power to make worthwhile use of leisure ability to think independently and critically together with command of the tools and processes that give access to the accumulated products of past cultures on the social side this personal development is to be such as will give desire and power to share in cooperative democratic living including political citizenship vocational efficiency and social good will

The Educational Policies Commission[1] defined the general end of education as "the fullest possible development of the individual within the framework of our present industrialized democratic society"

The categories under which the objectives of the *Course for Virginia State Curriculum* (published in 1932 by the State Board of Education Richmond) are grouped are

1 Protection and conservation of life property and natural resources
2 Production of goods and services and distribution of the returns of production
3 Consumption of goods and services
4 Communication and transportation of goods and people

[11] Herbert Spencer *Education* (New York D Appleton and Company 1874)

[12] Johann F Herbart *The Science of Education* (Boston D C Heath and Company 1895)

[13] E L Thorndike and A I Gates *Elementary Principles of Education* (New York The Macmillan Company 1929)

[14] John Dewey "The Duties and Responsibilities of the Teaching Profession," *School and Society* Vol 32 (August 9 1930) pp 188 191

[1] Alexander J Stoddard and others *The Purposes of Education in American Democracy* (Washington D C Educational Policies Commission of the National Education Association 1938)

5 Recreation
6 Expression of esthetic impulses
7 Expression of religious impulses
8 Education
9 Extension of freedom
10 Integration of the individual
11 Exploration

The Commission on the Relation of School and College of the Progressive Education Association classified the more general objectives of education as follows [16]

1 The development of effective methods of thinking
2 The cultivation of useful work habits and study skills
3 The inculcation of social attitudes
4 The acquisition of a wide range of significant interests
5 The development of increased appreciation of music art literature and other esthetic experiences
6 The development of social sensitivity
7 The development of better personal social adjustment
8 The acquisition of important information
9 The development of physical health
10 The development of a consistent philosophy of life

The Educational Policies Commission lists the following [17]

1 Self realization (the educated person)
2 Human relationship (the educated member of family and community group)
3 Economic efficiency (the educated producer or consumer)
4 Civic responsibility (the educated citizen)

These four groups of objectives are further developed as follows

A The Objectives of Self Realization
   1 *The Inquiring Mind* The educated person has an appetite for learning
   2 *Speech* The educated person can speak the mother tongue clearly
   3 *Reading* The educated person reads the mother tongue efficiently
   4 *Writing* The educated person writes the mother tongue effectively
   5 *Number* The educated person solves his problems of counting and calculating
   6 *Sight and Hearing* The educated person is skilled in listening and observing
   7 *Health Knowledge* The educated person understands the basic facts concerning health and disease
   8 *Health Habits* The educated person protects his own health and that of his dependents
   9 *Public Health* The educated person works to improve the health of the community

[16] Eugene R Smith and others Progressive Education Association, Commission on the Relation of School and College *Appraising and Recording Student Progress* (New York, Harper & Brothers 1942) p 18
[17] Stoddard and others *op cit*, pp 50 125

10 *Recreation* The educated person is participant and spectator in many sports and other pastimes
11 *Intellectual Interests* The educated person has mental resources for the use of leisure
12 *Esthetic Interests* The educated person appreciates beauty
13 *Character* The educated person gives responsible direction to his own life

B The objectives of Human Relationship
1 *Respect for Humanity* The educated person puts human relationships first
2 *Friendships* The educated person enjoys a rich, sincere, and varied social life
3 *Cooperation* The educated person can work and play with others
4 *Courtesy* The educated person observes the amenities of social behavior
5 *Appreciation of the Home* The educated person appreciates the family as a social institution
6 *Conservation of the Home* The educated person conserves family ideals
7 *Homemaking* The educated person is skilled in homemaking
8 *Democracy in the Home* The educated person maintains democratic family relationships

C The Objectives of Economic Efficiency
1 *Work* The educated producer knows the satisfaction of good workmanship
2 *Occupational Information* The educated producer understands the requirements and opportunities for various jobs
3 *Occupational Choice* The educated producer has selected his occupation
4 *Occupational Efficiency* The educated producer succeeds in his chosen vocation
5 *Occupational Adjustment* The educated producer maintains and improves his efficiency
6 *Occupational Appreciation* The educated producer appreciates the social value of his work
7 *Personal Economics* The educated consumer plans the economics of his own life
8 *Consumer Judgment* The educated consumer develops standards for guiding his expenditures
9 *Efficiency in Buying* The educated consumer is an informed and skilful buyer
10 *Consumer Protection* The consumer takes appropriate measures to safeguard his interests

D The Objectives of Civic Responsibility
1 *Social Justice* The educated citizen is sensitive to the disparities of human circumstance
2 *Social Activity* The educated citizen acts to correct unsatisfactory conditions
3 *Social Understanding* The educated citizen seeks to understand social structures and social processes
4 *Critical Judgment* The educated citizen has defenses against propaganda

5 *Tolerance* The educated citizen respects honest differences of opinion
6 *Conservation* The educated citizen has a regard for the nation's resources
7 *Social Applications of Science* The educated citizen measures scientific advance by its contribution to the general welfare
8 *World Citizenship* The educated citizen is a cooperating member of the world community
9 *Law Observance* The educated person respects the law
10 *Economic Literacy* The educated citizen is economically literate
11 *Political Citizenship* The educated citizen accepts his civic duties
12 *Devotion to Democracy* The educated citizen acts upon an unswerving loyalty to democratic ideals

It is next to impossible to summarize in a single all inclusive statement, the general purposes of education Better direction can ordinarily be secured from short lists of statements Some of the most frequently quoted are given below

The Commission of Secondary School Curriculum summarized the major purposes of education as [18]

1 Sound health
2 Worthy home membership
3 Mastery of the tools techniques and spirit of learning
4 Faithful citizenship
5 Vocational effectiveness
6 Wise use of leisure time
7 Ethical character

Using language somewhat different from that of the original report of the Commission, a recent issue of the *Journal of the National Education Association* said [19]

The school seeks to prepare every child regardless of race or condition to achieve for himself

1 A sound mind in a strong and healthy body
2 A home life that is happy unselfish and democratic
3 The ability to read and write to think study and act intelligently
4 An informed citizenship dedicated to the common good
5 The knowledge and skill needed to earn a good living
6 The use of free time for worthy activities and pleasures
7 The spiritual character that is trusted and admired

Bobbitt employing an activity analysis approach, listed the areas in which there should be proficiency as follows [20]

1 Language activities
2 Health activities

[18] V T Thayer and others Progressive Education Association Commission of Secondary School Curriculum *Reorganizing Secondary Education* (New York D Appleton Century Company Inc 1939)

[19] Seven Objectives of Education, *Journal of the National Education Association*, Vol 23 (March 1934) p 88

[20] Franklin Bobbitt *How to Make a Curriculum* (Boston, Houghton Mifflin Company 1924)

3 Citizenship activities
4 General social activities
5 Spare-time activities
6 Keeping oneself mentally fit
7 Religious activities
8 Parental activities
9 Unspecialized non vocationalized activities
10 The labors of one's calling

Some important characteristics of objectives such as the foregoing The foregoing statements of objectives have been reproduced here to provide some concrete and tangible illustrations of the specific sorts of things that we have in mind in the discussion of objectives to follow It might be well at this point while these materials are still close at hand to comment upon certain characteristics that seem to have important implications for practice

First, they do not illustrate the qualities of completeness, coherence, and consistency with which educationalists would and should be concerned in considering the over-all adequacy of the school program This is no fault of the objectives but of the way in which they have been chosen It did not seem feasible because of the limitations of space to reproduce here full sets of school objectives for all units grades, courses and subjects, such as would be necessary to illustrate completeness, coherence, and consistency It is hoped that the reader will, however, secure a complete set of curricula and courses of study for one or more school systems and examine them from this point of view

Second, the objectives as here stated are for the most part *general* objectives—general in the sense that they represent the needs and objectives not of some individual pupil in some particular learning-teaching situation but of groups of pupils drawn from very diverse situations Like all generalizations, they are based upon the common elements thought to exist in some particular group of pupils as, for example, first-grade pupils, twelve year-old boys, and returning veterans Such statements provide valuable assistance in pre planning activities, but must not be taken to represent the individual needs of particular pupils

Third, objectives such as the foregoing are *inferences,* and like all inferences subject to error The process of establishing needs and objectives is an inductive-deductive one in which one may work either inductively or deductively or in both ways concurrently When working inductively, one should make certain that all generalizations are grounded in fact, adequately represent the facts, and are convincingly accurate When working deductively that is, from the general to the particular, one must show that what follows really follows—that is, the attainment of the immediate brings one nearer to a further goal along the way This relationship is not always easily established Conventionally, the generalization that a need exists is the result of a practical judgment and subject to the errors of such judgments Much checking

will need to be done, in most cases, upon these ordinary judgments to be reasonably certain of their accuracy This applies to inferences arising from either systematic investigation or incidental observation

Fourth, the objectives as here stated are for the most part highly abstract [21] They represent aspects of objects rather than objects as wholes, and are merely the categories under which the more concrete needs of pupils have been classified Some would contend that the objectives of education should refer primarily to what *exists* and only secondarily to the *qualities* of objects We believe that both approaches have value, it should not be forgotten, however, that people differ greatly in their capacity for abstract thinking Possibly if the objectives of education were primarily concrete and only secondarily abstract, they would be more generally understood and used by teachers

SECTION 2

HELPING TEACHERS AND PUPILS DISCOVER NEEDS

The types of needs to be here considered Three types of needs will be here considered (1) the felt needs of pupils, (2) the needs of pupils considered important by adults teachers supervisors, administrators parents, and other adult members of the community, and (3) the broad social needs of man and mankind It is probably unnecessary to say that there has been considerable difference of opinion as to the amount of emphasis that one should place upon these different types of needs in choosing objectives for the school's program All are important Although we shall start with the real and felt needs of pupils these needs will be considered in relation to the social setting The social order will influence in no small way the extent and manner in which these needs will be satisfied, both those of children and of adults

Discovering the felt needs of pupils One of the very wholesome current emphases in formulating objectives is the emphasis upon pupil purposing Many people feel that better progress will be made in school work when cognizance is taken of the pupil's wishes, attitudes and desires The values of children are not those of grown ups The things that children consider of most worth are very different from those considered worth while by adults This fact is quite clear to those who have stopped to consider this matter, and it is an important one to be kept in mind in formulating educational objectives

Many methods have been employed in discovering the felt needs of pupils Three illustrations are given below

1 *Bragonier's interest questionnaire* Wendell Bragonier,[22] Lincoln Junior High School, Des Moines, used pupil interest questions as a

[21] Thompson, *op cit* pp 196 197

[22] H H Giles *Teacher Pupil Planning* (New York, Harper & Brothers 1941) pp 263 266

means of securing information from his classes about what they would like to get from the year's experience in science Illustrative lists of questions classified according to certain topics are given below

A Air and Air Pressure
1 How dense is the air?
2 What causes the different densities of the air?
3 How is artificial air made?
4 What causes air pressure?
5 Why is air at an altitude lighter than air here?
6 What makes air pockets?
7 How is air transformed from hot to cold and back again?
8 How is liquid air made?

B Sound
1 How are sound waves picked up by radio?
2 How are sound waves sent out for radio?
3 What causes thunder?
4 Difference between muerate and speaking voice?
5 How does the voicebox vibrate?
6 How is a voice recorded on a victrola record?
7 How does sound affect work?
8 Why do different musical notes have a different number of vibrations?
9 How can sound travel through wires?
10 Why is air necessary in hearing musical sound?
11 What is an echo?
12 Why is it difficult for one speaking in the open air to be heard?
13 When calling to someone at a considerable distance, is cupping the hands before the mouth any advantage? If so why?
14 How can deaf children listen to music by resting their hands and head upon the frame of a piano?
15 How does opening the holes of a saxophone or clarinet affect the pitch?

Sets of questions similar to these are presented for a number of subjects such as weather and climate, water machinery electricity and light

2 *Mooney's check-list for determining the problems of high school youth* Currently much use is being made of the problems of school children in determining needs To facilitate this type of approach to setting objectives Mooney[3] devised a check-list composed of short statements representing the common problems of students The student uses the list by marking the problems which are of particular concern to him and by writing a summary in his own words The college and high school forms contain 330 items each, grouped into eleven categories (1) Health and Physical Development (2) Finances, Living Conditions, and Employment, (3) Social and Recreational Activities, (4) Courtship, Sex, and Marriage, (5) Social Psychological Relations, (6) Personal Psychological Relations (7) Morals and Religion, (8) Home and Family, (9) The

[3] Ross L Mooney 'Exploratory Research on Students Problems,' *Journal of Educational Research*, Vol 37 (November 1943) pp 218 224

Future Vocational and Educational, (10) Adjustment to School Work, and (11) Curriculum and Teaching Procedures The items are phrased as follows "In too few school activities,' "Shyness," "Having no close friends,' "Lost—no sense of direction in my life,' "Confused in my religious beliefs," "Moral code weakening," 'Needing to decide on an occupation, "Family opposing my choice of vocation, "Not liking school,' "Wanting more help from the teacher ' "Slow in reading,' and the like The method provides an excellent means of discovering the felt needs of pupils It is limited to the extent that the problems of the persons concerned are circumscribed by their insight and the scope of their experience

3 *Raths offers an instrument for identifying the needs of children* The instrument contains 160 items indicative of eight groups of needs as follows (1) a feeling of belonging (2) a sense of achievement, (3) economic security, (4) freedom from fear, (5) love and affection (6) freedom from guilt (7) a share in making decisions and (8) integration in attitudes, beliefs, and values Some excerpts from the test are given below

The following statements relate to the feeling of belonging [24]

1 I wish I did not have to play by myself so much
9 I wish I liked more children
17 I wish I felt as though I really belonged in my school group
33 I wish there were more children my age to play with
129 I wish children in our neighborhood were friendlier to me

The following statements relate to the desire for economic security

11 I wish I could be sure that my father would always have a steady job
27 I wish I could have money of my own to spend as I please
13 I wish our family could afford to give each other better presents at Christmas and on birthdays
107 I wish our family could afford to go to doctors and dentists whenever we needed them
122 I wish our family had enough money so that we didn't have to worry so much about food clothing and rent

The following statements relate to the feeling of guilt

14 I wish I liked Negro children as much as I like white children
22 I wish I had never lost my temper
38 I wish I had never cheated
46 I wish I had never looked down on people who are poor and uneducated
62 I wish I had been more obedient

4 *Suggestions form the Florida state course of study* The Florida state course of study offers the following very helpful suggestions for discovering and understanding the goals and needs of individual pupils [25]

[24] Louis Raths and Lawrence Metcalf An Instrument for Identifying Some Needs of Children *Educational Research Bulletin* Vol 24 (October 1945) pp 169 177 196

[25] *The Course of Study for Florida Elementary Schools Grades 1 6* (Tallahassee Fla State Department of Education 1938) p 13

1 Ask the members of the class to answer questions somewhat similar to these Why do you want to come to school? What do you want to learn this year? Have you seen something lately about which you have wondered but about which you could not find the answer? What do you like to do at school at home?

2 Watch the children while they are playing or working during their free time The books which the children use voluntarily the objects which they make the playthings which they choose the groups which they join and the free discussions—all give to the teacher an excellent idea of the things about which the children are concerned

3 Talk casually to individuals and to small groups letting them take the lead in the conversation Occasionally when questions are asked the teacher may make mental notes without comment As soon as possible these notes should be recorded for future reference

4 Give the children an opportunity to tell the others about good times they have enjoyed about the interesting things they are doing or have done and about the things they would like to do

5 Ask the children to collect pictures which appeal to them or which they think would appeal to some member of the group (These pictures may be brought to school and classified by the teacher for her own guidance Other objects of interest may be used in a similar manner)

6 Distribute to small groups of children catalogs from mailorder houses and give the pupils directions for using the index The teacher may watch to see what the children look for

7 Talk to the parents to find out how the child spends his free time at home and what interests are his which his parents know about

Discovering the pupils' needs considered important by adults Very few fields have had more intense cultivation in recent years than that of child development The literature in this field is rich and varied Our problem here is that of becoming better acquainted with child nature and needs in order that we may more intelligently facilitate pupil growth We shall be concerned here with only the broad categories of development The developmental status of the individual child will be considered later

The growth needs of children are varied We shall in considering the growth needs of children be concerned with the growth needs of the whole child (1) needs growing out of the facts of physical and motor development (2) needs growing out of the facts of mental development (3) needs growing out of the facts of emotional development (4) needs growing out of the facts of social development, and (5) needs growing out of the facts of the all around development of the whole child We shall comment briefly on each of these categories of child development mostly in the way of a reminder

Needs growing out of the facts of physical and motor development The child is a growing developing, maturing physical being He is aging chronologically, growing in height and weight developing in strength motor skill, and coordination and maturing physiologically His needs are chiefly those of a good physical environment, protection against

disease, good nutrition, opportunities to be active, adequate rest, sleep, and relaxation, proper clothes, and good physical management

Needs growing out of the facts of mental growth The child is growing mentally in sustained attention, in intelligence, in the development of concepts and reasoning, and in the acquisition of mental skills and language His needs are for activity and experience The facts of mental growth appear to be better known than those of other types of growth

Needs growing out of the facts of emotional growth The child is growing emotionally in becoming acquainted with the fundamental emotions of fear anger and affection, in adjusting to conflicts and in developing emotional control There is a growing need for security, social approval and success

Needs growing out of the facts of social growth The child is growing socially developing sympathy friendships, aggressive and submissive behavior competitive activities, leadership understanding of other people and skill in working with them and moral values The needs in these areas are for understanding and sympathetic assistance There will be problems unique to early childhood later childhood, and adolescence

Needs growing out of the growth of the child as a whole The child is a developing whole There is need for well-integrated wholesome, pleasant forceful and well adjusted personalities The personality needs of children are many

Suggestions for further reading The discussion of child needs is not meant to supply a fully developed discussion of this subject Such a discussion is beyond the scope of this volume There is a wealth of materials in this field The following books and the bibliographies contained therein may be found helpful

BARKER Roger G and others *Child Behavior and Development* (New York McGraw Hill Book Company Inc 1943)

PRYOR Helen B *As the Child Grows* (New York Silver Burdett Co 1943)

LEE J Murray and LEE Dorris May *The Child and His Curriculum* (New York D Appleton Century Company Inc 1940)

PRESSY Sidney L and ROBINSON Francis D *Psychology and the New Education* (New York Harper & Brothers 1944)

GATES Arthur I *Educational Psychology* (New York The Macmillan Company, 1942)

JERSILD Arthur T *Child Psychology* (New York Prentice Hall Inc, 1940)

MURPHY Gardner MURPHY Lois B and NEWCOMB T M *Experimental Social Psychology* (New York Harper & Brothers 1937)

ZACHRY C B and LIGHTY M *Emotion and Conduct in Adolescence* (New York D Appleton Century Company Inc 1940)

DEARBORN Walter F and ROTHNEY John W M *Predicting the Child's Development* (Cambridge Mass, Sci Art Publishers 1941)

JONES Harold E, *Development in Adolescence* (New York, D Appleton Century Company, Inc, 1943)

Discovering the broad social needs of man and mankind Considerable attention has been given in recent years to the determination of the social

needs of man and mankind As usually happens when a number of persons turn their attention to a complex undertaking, such as the discovery and validation of needs, different ways of doing it arise At least six distinctly different approaches have been employed in determining the broad social needs of man and mankind (1) biological and psychological studies of the nature and needs of man, (2) historical studies of social trends and institutions (3) activity analyses of adult life, (4) studies of the errors shortcomings, and difficulties experienced by adults (5) studies of successful and unsuccessful individuals, communities, and institutions, and (6) consensus of experts These sources of information relative to needs are not of equal value, but they all attempt to supply in one form or another more accurate data relative to the broad social needs of man and mankind

Studies of the original nature and needs of man Among the more fundamental attacks that have been made upon the determination of the needs of man are those dealing with the biological and psychological characteristics of man If one assumes that education is somehow to improve the lot of man and to administer to his needs then one of the very best sources of the objectives of education will be the many scientific and semiscientific studies of the nature and needs of man Thorndike recognized the need for more information about the dynamics of human nature and behavior many years ago [28] In his early work on this subject he discussed such important problems as the nature and importance of the original tendencies in man, the sources of original tendencies the anatomy and physiology of original tendencies intelligence sensory capacities, emotions, responses to behavior of other human beings, original wants interests, and motives Though great progress has been made in the sciences of biology physiology, and medicine during the last quarter of a century in sharpening our concepts of the biological needs of man there is no doubt that Thorndike even in his early studies of the original nature of man hit upon a tremendously fruitful source of information about human wants and wishes, indispensable to those who would improve the educative process Although vigorously attacked in many quarters one of Thorndike's most important contributions to education is his discussion of the original determiners of human action Thorndike's theory of instincts has now been quite generally discarded by educationalists and psychologists, but the biologists have found ample support for his insistence upon the importance of wants interests and motives in human activities When one looks at a fairly modern list of these fundamental determiners of human action such as that supplied in the revised edition of Gates *Psychology for Students of Education* one realizes that there is nothing particularly fanciful in them and that they

[28] E L Thorndike *The Original Nature of Man* (New York, Bureau of Publications Teachers College Columbia University 1913)

are nothing more or less than the normal functioning of a biological organism [27]

List of organic urges

1 Hunger the craving for food when hungry
2 Thirst the craving for drink when thirsty
3 The craving for air when breathing is difficult or air inadequate
4 The craving for rest when fatigued
5 The craving for sleep when drowsy
6 The craving for warmth when cold
7 The craving for coolness when overheated
8 The craving for action when well and rested
9 The craving of sex when sexually aroused
10 The urge to escape when frightened or injured
11 The urge to get rid of painful or disagreeable substances or conditions

According to this point of view all human activity is initiated and sustained by certain urges drives, desires or wants These wants are the final determinants of good and bad, useful and useless, right and wrong beautiful and ugly In presenting this view, Thorndike and Gates say [28]

According to modern psychology all human activity is initiated and sustained by some urge craving desire or want The young infant is largely immobile until it experiences the craving for food or the urge of thirst or the desire for physical activity or some other want It then becomes active and the activity continues until the infants craving is satisfied until it secures what it wants unless the desire subsides or is overcome by some other urge such as the craving to rest from the effects of its own exertions Unless the infant wants something, there is no occasion for striving When it is actively seeking to satisfy one urge, such as hunger the object of that urge food is supremely important valuable, good whereas other things such as noises movements toys are at the time relatively unimportant and undesired To the infant then things take on value and importance as they serve to satisfy some childish want

What is true of infancy is fundamentally true of all ages Human cravings, in the last analysis initiate and sustain action Without them the human organism would become inert like a wonderful clockwork whose springs had been removed or an engine whose fire had been drawn Wants furthermore are the final determinants of good and bad useful and useless, right and wrong, beautiful and ugly Things have value and importance only as they serve to satisfy the urges which lie back of somebodys strivings they are called useless bad wrong and the like only as they fail to contribute to, or positively thwart some conscious beings efforts to satisfy his cravings

Every individual has many wants Some of his wants are native, arising out of biological processes, and some are acquired In a very real sense the ultimate purpose of education is to supply these normal wants of man and mankind in a tangible way A modern utopia might very well be a

[27] Arthur I Gates *Psychology for Students of Education* (Revised edition New York The Macmillan Company 1931) p 187 By permission of The Macmillan Company publishers

[28] E L Thorndike and Arthur I Gates *Elementary Principles of Education*, pp 16 17 By permission of The Macmillan Company, publishers

world of plenty in which everyone has the opportunity to secure every thing he wants The amount of labor essential to supplying these wants is merely a detail in this larger pattern Unfortunately, however, man lives in a world of many scarcities in which to satisfy one's own wants as fully as one would choose is, in some instances, to stand in the way of the satisfaction of the wants of others Thus, the world of conflict arises in which we find ourselves Under such conditions the problem of education and of those interested in social planning becomes that of maintaining some balance between the wants of the individual and the wants of the larger group of which he is a part It would seem that we might very well desire to have every person satisfied as long as this does not interfere too greatly with the wants of others Here as elsewhere one must pursue the principle of the greatest good or greatest happiness to the greatest number of individuals Although there are numerous evidences of the conflicting character of society, there are also many instances of the advantages to be gained from cooperation At times to satisfy our wants we can do so only through the assistance of others It would appear that the cooperative aspects of human relationships may be somewhat more in evidence in this than in the past generation, at least in theory if not in practice Social conventions moral and legislative acts are merely the rules of fair play in a competing and cooperative society

According to this conception of the social order, the most valid sources of the objectives of education will be found in the wants of man and mankind From this point of view education should strive for the satisfaction of the wants of every individual as far as possible without taking too much from the larger group of which he is a part, it should strive for a better social order and seek to diminish or modify the wants of the individual that are futile or antagonistic to the wants of others or cultivate less antagonistic wants in their place When wants cannot be satisfied individuals may need to be trained to bear their scarcities with others, and to adjust themselves, with reasonable effort, to the conditions of life as they find them Eventually we should achieve a more abundant life

It is not easy to give an adequate evaluation of this approach to the determination of needs It very obviously emphasizes the biological foundations of education and is opposed in emphasis to the sociological approach to human needs Just how much conflict there is between these points of view remains to be seen There is no doubt that the biological approach has the advantage of being definite and subject to scientific verification Its inadequacies undoubtedly rest upon the fact, however, that man nowhere lives in a raw physical state divorced from his social environment He must and does live in an environment, and the environment in which he lives is probably as important as the biological nature of man in determining human wants and capacities His original nature is always, therefore deeply embedded in his acquired nature, and it is

accordingly most difficult to determine original wants and capacities divorced from acquired wants and capacities.[29] Insofar as it is impracticable to determine the original wants and capacities of man divorced from environment, the biological, physiological, or psychological approaches to the purposes of education would seem inadequate. Whether these original tendencies of man can be discovered and described with sufficient accuracy to be of practical value to those responsible for the educative process remains to be determined by further study of this problem.

The evolving nature of society in relation to individual needs. In this connection it should be emphasized that those responsible for the derivation of objectives should not overlook the fact that we live in an evolving society. Man is born with certain cravings, desires and wants, and certain capacities currently present or potential. He lives, however, in a world of natural and human objects, and these objects place limitations upon what happens to him. They make possible continual redirection and elaboration of his motives and acquired tendencies. Man's contact with other men and groups of men tends to restrain certain desires and impose upon him the conventions of society. They also release action and multiply forms of self expression. In a similar manner man is molded by his natural environment. Though certain of the necessities of life are furnished without toil, most of them are produced by intelligent effort. Through creative thinking and effort each individual may make the best of the situation in which he finds himself. In attempting to make the best of the situation he develops new means of control, and these give rise to new problems, new needs and new conventions. Language, the press and the school as institutions have provided man with a means of conserving the achievements of the past and present generations for the use of future generations. Each generation starts, in a manner, where the previous one leaves off, and continues the struggle for improved conditions of living. The society in which we live is ever evolving, thus ever reaching out to satisfy the original and acquired cravings of man and developing new needs and wants.

The history of social institutions and trends as a source of objectives. An interesting extension of the psychological theory of human wants will be found in Finney's theory[30] of social wants as determined by the study of the history of social institutions. Starting with the principle that the needs of man are the ultimate criteria of value, Finney suggests that the needs of an organism are revealed in its activities, but that the cataloguing of these needs is an incomparably more complex problem than that of taking an inventory of animal behavior, from which most psychol

[29] Charles H. Judd, *The Psychology of Social Institutions* (New York: The Macmillan Company, 1926), pp. 1-4.

[30] Ross L. Finney, *A Sociological Philosophy of Education* (New York: The Macmillan Company, 1928), pp. 72-95. Also see Judd, *op. cit.*, pp. 1-4.

ogists take their point of departure in discussing human values Almost all human behavior, Finney contends, is learned behavior the few inherited reflexes that characterize man throw little or no light on the real nature and needs of man

Finney thus suggests that we lift our eyes from the roots of the instincts to the foliage of culture in which the real needs of biological man are discoverable To bring order out of complexity, the first enterprise of the scientist is classification A classification, however of the cultural activities of man is already available in the basic and universal institutions of human life the family the state the church the school and industry The universality of these institutions constitutes the evidence of their fundamental character The immediate aim of education is according to Finney, therefore, to prepare young people for effective participation in the institutions of society "The institutions of society are the objectives of education [31]

But society evolves and it is the responsibility of social engineers to guide social evolution so far as possible toward desirable goals How shall we decide *whether* a *given form of the family* or *the state* or *religion* or what not is best suited to the innate needs of man and what constitutes a well balanced social ration? This is a problem of historical research involving a comparative study of racial experiences Many forms of family life for example have been experimented with so that it ought to be possible by comparative study to determine approximately at least which forms have worked the best Many kinds of government have been tried by analysis and comparison trends ought to be discoverable useful elements analyzed and bad features discarded Various forms of industrial organization have been given the pragmatic test from the results of racial experience we ought to know by now whether industrial exploitation for example works well or badly in the end And so with each of the items in the two lists above [see text] To each the pragmatic test of racial experiment must be applied Thus norms can be approximated [32]

Finney's criticism of the original nature of man theory of deriving the objectives of education is that the original tendencies of man throw little or no light on the real nature and inherent needs of man, and that man's wants are primarily social in character The characteristic weaknesses of the analysis of social institutions as a mode of determining the objectives of education are (1) social institutions may be the products of acquired wants and these may be perverted, (2) social institutions are not ends in themselves but means to ends and (3) social institutions like many human beliefs, practices and conventions, tend to persist beyond the period of their usefulness History contains many instances of the persistence of error

The study of social trends Another very interesting application of the historical method to the determination of educational objectives will be

[31] *Ibid* p 93

[32] Finney *A Sociological Philosophy of Education* p 90 By permission of The Macmillan Company publishers

found in the many recent studies of social trends.[33] The purpose of such long-time historical-status studies of society is to bring into bold relief the major social changes that have taken place from time to time in the course of events and to describe as fully as time permits the chief characteristics of the social order as constituted at strategic points in the history of man.

At present we are emerging from a second world war which has taxed the resources of all concerned and placed new responsibilities upon the schools. Even before the war our educational leaders had come to question seriously the adequacy of current school education in the complex social order of which we are a part. A statement of ten social trends which seemed to have profound educational implications some ten years ago as seen by a national committee of sociologists, economists, historians, and others interested in this subject is given below. The statement seems equally pertinent today.[34]

Trend I. Mechanical inventions make possible increased time freed from the production of goods and services required for the maintenance of a given standard of living.

Trend II. Society is today characterized by serious strains due to the failure of many of our institutional forms and practices to keep pace with the recent rapid rate of industrial change.

Trend III. The increasing amount of specialization and division of processes has increased the interdependence among individuals, communities, and nations, and is resulting in an increase of cooperative action.

Trend IV. The growing complexities of modern life are resulting in an increase of large-scale, long-time planning.

Trend V. The machine age reduces the direct personal relationship between producer and consumer and thus tends to increase our dependence upon forms of social control.

Trend VI. With the increasing complexity of society the source of control of a social agency tends to become more remote from its individual beneficiaries.

Trend VII. The intricacies of social relationship have resulted in the increased use of expert knowledge and trained leadership.

Trend VIII. The growing recognition of individual differences is resulting in greater differentiation of the provisions made to people in a democracy.

Trend IX. The dynamic character of industrial society, the diversity of cultural patterns in modern life, the wider diffusion of knowledge, and the rise of the scientific attitude are tending to weaken authoritarian and conventional controls over human conduct.

Trend X. The development of social cleavages, both horizontal and vertical, is deepening the strains and tensions in American life.

To these we might add the great concerns of today for the maintenance of peace, better international, interrace, and interclass understanding,

[33] *Recent Social Trends in the United States*, Report of the President's Research Committee on Social Trends (New York: McGraw-Hill Book Company, Inc., 1933).

[34] John W. Studebaker and others, *Social Change and Education*, *Thirteenth Yearbook* of the Department of Superintendence (Washington, D.C., National Education Association, 1935), pp. 13-25.

religious tolerance, and economic security It is important that the school recognize these needs and help provide the educational foundation for a better order

Some limitations of social-trends approach to the discovery and validation of educational objectives Like other methods of discovering and validating the long time objectives of education, the social-trends approach is not without its own peculiar limitations In the first place it is most difficult to get accurate records of historical events The data of history are based for the most part, upon incidental observation and are most incomplete Although there is no substitute for history, and its contribution is unique, conclusions from historical data will need to be drawn with great care Second the social conventions practices and trends for any particular historical period may be most undesirable The fact that a given social practice exists cannot be soundly employed to justify its social worth except in a most general sense Thievery is a well established practice in most social groups, but its presence among many peoples and periods of history could scarcely be accepted as satisfactory evidence of its desirability Societies like individuals, sometimes get into blind alleys and the otherwise wholesome urges of man may be seriously perverted over long periods of time Though history is a valuable source of ideas about educational objectives its data must be employed with great care A third shortcoming of the social trends approach to the discovery and validation of educational objectives is its very frequent failure to link trends and events with their social consequences The educationalist in search of valid objectives needs to know not merely what took place, but what the effects were in the lives of the people concerned, as well In other words he must evaluate and to evaluate, he must apply criteria Of course history may even supply a history of such criteria, but they can scarcely be taken for granted

The task of preparing useful histories of social trends is a most difficult one Merely to report the trends for any particular period of history without giving accurate information about the general welfare of the people under the conditions reported is to fail to supply the kinds of information essential to the objective evaluation of the trends observed A trend may be desirable or undesirable depending upon what it does for the group concerned In the absence of accurate information about what has happened or is happening to the people concerned as a result of various trends in society, it is impossible to determine whether the trends are desirable or not In any case, to evaluate the trends in social evolution involves the use of criteria, the validity of which is not easy to determine An excellent example of such a study of social trends will be found in a recent report of the Commission on the Social Studies Another important statement is the *Report of the President's Research Committee on Social Trends* already referred to earlier in this chapter The study of society by competent workers in the field of social sciences

should contribute much that is of value to the assistance of those in charge of the schools when the work is performed to give proper perspective of events and their effects

Activity analyses of adult life Bobbitt describes the method of activity analysis as follows [35]

> The central theory [of this method] is simple Human life however varied consists in the performance of specific activities Education that prepares for life is one that prepares definitely and adequately for these specific activities However numerous and diverse they may be for any social class they can be discovered This requires only that one go out into the world of affairs and discover the particulars of which these affairs consist These will show the abilities attitudes habits appreciations and forms of knowledge that men need These will be the objectives of the curriculum They will be numerous definite and particularized The curriculum will then be that series of experiences which children and youth must have by way of attaining these objectives

The activity analysis is greatly superior to incidental observation as a means of discovering educational needs, particularly in making needs more definite There have been many excellent formulations of the general objectives of education in the past, but because of their generality they have produced little change in the educational practice Such vague, high sounding objectives, as Bode says, have [36]

> the appearance of being a kind of New Year resolution, formulated in conformity with the spirit of the occasion but with no thought of taking them seriously Our forefathers talked much of character formation and discipline but did not consider it necessary to keep these high purposes in mind when they were occupied in drilling defenseless childhood in the forms of Latin syntax

The activity analysis presents an effective method of particularizing the needs of people Though the method is not without very real theoretical limitations, it has done much to bring home to school people the fact that the offerings of the school must be brought into closer agreement with demands of everyday living In this respect, the method has made a valuable contribution and may continue to do so when used with proper care

Some fundamental assumptions underlying the use of the activities method The activities method as with other methods of determining educational needs, is not without limitations In using this method of deriving needs, one makes at least three assumptions (1) One assumes that the activities now performed by adults are desirable If safe-cracking and high-jacking are found among the activities of mankind, then, the application of the method of activity analysis would lead to the inclusion of such activities among the legitimate goals of instruction Of course, those using this method of determining educational objectives would

[35] Franklin Bobbitt *The Curriculum* (Boston, Houghton Mifflin Company, 1918) p 42

[36] Boyd H Bode *Modern Educational Theories* (New York The Macmillan Company 1927) pp 73 74 By permission of the publishers

eliminate such activities from the training program but this separation of the desirable and undesirable activities constitutes an important judgment and should not be left wholly to personal opinion (2) It is assumed, in determining the qualities essential to the successful performance of life's activities, that successful performance can be determined It is essential to the use of the activities method that successful performance be distinguished from unsuccessful performance, since it is for successful performance that one must train This distinction of successful from unsuccessful performance involves an important judgment that must be rendered according to criteria extraneous to the method itself (3) The activity method assumes that the constituents of successful performance can be enumerated Those engaged in making activity analyses of the scientific sort have found it most difficult to determine the constituents of successful performance[17] One must not merely enumerate the constituents of a given activity, but one must determine those that are essential and important The subjective analyses of untrained observers are likely to result in most instances in erroneous conclusions Much of the work in this field has been most unscientific If this method is to be generally employed in determining educational needs the research in this field must conform to the accepted principles of sound research

Application of the method of activity analysis should include studies of the activities of children One of the criticisms frequently made of the activity-analysis method is that it often assumes that the purpose of school education is preparation for adult life Reference has already been made to the fact that although all education is in a manner preparation for adulthood it must not be forgotten that children are human beings and as such are entitled to certain considerations in their own rights as children These rights will include the right to engage in activities accepted by children as interesting and worth while from their point of view Such a view of child life emphasizes that the best preparation for adulthood will be found in the successful performance of the normal activities of childhood With this point of view most educationalists will agree, especially when the normal activities of children are considered in the developmental sequence leading to maturity and adulthood Aside from the impositions made by the adult members of society there are a large number of activities in which children will, if permitted to do so, engage upon their own volition These are largely play activities of an individual sort to begin with, but gradually change to include team games with members of the same sex and in due course of time numerous social activities involving the opposite sex Studies of these normal activities of childhood, and of the knowledges, skills, attitudes, ideals and appreciations essential to success in them, though subject to the theoretical limitations already noted in the application of the method

[17] A S Barr *Characteristic Differences in the Teaching Performance of Good and Poor Teachers* (Bloomington Ill Public School Publishing Co 1929)

of activity analysis to studies of adult life, may, however, under proper conditions, become an important source of educational guidance. Numerous studies[38] can be found in the literature of education of the adventure-exploratory activities, of the play activities, and of the larger social activities of children, but no systematic attempt appears to have been made to discover the qualities essential to success in these important areas of child life. The method of activity analysis may, under proper conditions, supply valuable information about the needs of children. This point will be further developed later in the discussion of methods of determining immediate objectives of learning and teaching.

The job analysis method. A job analysis is a special form of activities analysis in which the object is to determine the major constituents of some task or job. It was first used in employment management and vocational training[39] from which its application has been extended to the more general field of curriculum construction and to the analysis of the constituents of good health, citizenship, and so on.

Charters gives the following analysis of the position of "application clerk" in a department store:[40]

1. Meets people who desire to open accounts
2. Asks them for the information to fill out blank
3. Telephones or writes form letters for references
4. Fills out Mercantile Agency blanks
5. Looks up rating in Dun's etc.
6. Files applications temporarily till references come in
7. Makes notes of references on blanks and hands to credit chief who passes on them
8. Enters name, address, and number of applications in index
9. Answers requests from other firms for references

The nine duties that an application clerk must perform are shown in this list. Clearly a course of study for the training of such clerks will deal with these topics. The method furnishes a valuable tool for deriving information about specific occupational needs. The assumptions underlying the application of this method are essentially those underlying the application of the method of activity analysis.

Studies of the problems, difficulties, errors, and shortcomings of adults as sources of educational needs. Studies of problems, difficulties, errors, and shortcomings are forms of activity analysis in which cognizance is taken only of the problems, difficulties, mistakes, and deficiencies observed in the performance of life's activities instead of all of the abilities, knowledges, skills, attitudes, and ideals essential to successful perfor-

[38] H. C. Lehman and Paul A. Witty, *The Psychology of Play Activities* (New York: A. S. Barnes and Co., 1927).

[39] C. R. Allen, *The Instructor, The Man and the Job* (Philadelphia: J. B. Lippincott Company, 1919).

[40] W. W. Charters, *Curriculum Construction* (New York, The Macmillan Company, 1925), p. 35. By permission of the publishers.

mance The point of view behind this approach to needs is that the school is only a supplementary agency and as such should concern itself in the main with only those phases of life that are deficiently performed or with the phases of life with which persons experience difficulty, for example the errors in one's spoken language, observed citizenship shortcomings problems arising in maintaining good working relations with others, and the like

Charters was one of the first to make general use of this method of determining needs in a study of errors in language and grammar A summary of his investigation and those of a number of other individuals is presented in Part I of the *Sixteenth Yearbook* of the National Society for the Study of Education, in a section by W W Charters[41] A later report upon the same subject will be found in Charters *Curriculum Construction*[42] in which the results from a number of investigations are summarized In the Pittsburgh study, for example twenty three specific errors with a frequency of over two hundred constitute 56 per cent of all errors in language The method is here applied to the language errors of school children the same method is applicable to the lacks of adult members of society as shown by many studies of maladjustments crime poverty, and illiteracy

The method rests upon essentially the same assumptions as those made in applying the method of activity analysis

Comparative-causal studies of successful and unsuccessful individuals, institutions, and communities It is often helpful in determining educational needs to study the characteristics of successful and unsuccessful individuals institutions, and communities[43]

There have been many investigations of this sort reported in the literature of education Barr[44] for example applied this method in a study of the teaching performance of forty seven good teachers and forty-seven poor teachers of the social studies, to discover the distinguishing characteristics of good and poor teachers Luella Cole[45] used this same method in studying students on the college level to determine the causes of failure among such students A similar procedure might be followed with the good citizen the good husband and so forth The method is one which may be used extensively for exploratory purposes

The difficulties involved in the application of this method are of two

[41] W W Charters "Minimum Essentials in Elementary Language and Grammar" in the *Sixteenth Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co, 1917) Part I

[42] Charters *Curriculum Construction op cit*, p 203

[43] F W Westaway *Scientific Method Its Philosophical Basis and Its Modes of Application* (Third edition London Blackie and Son 1924) pp 203 214

C V Good A S Barr and Douglas E Scates, *The Methodology of Education Research* (New York D Appleton Century Company, Inc, 1936)

[44] Barr *op cit*

[45] S L Pressey and others *Research Adventures in University Teaching* (Bloomington, Ill, Public School Publishing Co 1927), Ch 1

sorts (1) those arising out of the definition of success or failure (the criteria to be employed for this purpose will have to be derived from some extraneous source), and (2) those arising from the difficulty of determining the antecedents of the phenomenon under investigation The criteria may not be valid except as they may have been carefully validated by other methods The method cannot thus be employed for the more remote purposes of education These will first have to be determined by other methods after which this method may be used with profit It does furnish a valuable means of determining scientifically the proximate needs of man and mankind Even then it must be used with great care and with due consideration to its exploratory character It may, however be effectively employed as a forerunner to the even more laborious and time-consuming experimental method Under proper conditions it should supply valuable information about the more immediate purposes of education

The consensus of experts A final source of broad social needs to be discussed herein, is the consensus of experts Man has always had opinions about his needs Sometimes his opinions have been well founded in fact and sometimes not One of the very common sources of educational guidance to which school people may turn are the opinions of experts and committee reports such as those referred to on pages 159 through 164 in this chapter One of the implications of the discussion that has just preceded this is that the determination of educational needs should as far as possible be the object of careful investigation Much progress has been made in this respect, but more needs to be done In the meantime one of our best sources of guidance will be found in the consensus of experts

Limitations of opinions as methods of discovering and validating needs Reference to expert opinion as a source of information relative to the broad social objectives of education suggests that some consideration should be given to the methods of ascertaining facts in this field The most common one of determining needs is that of opinion, based upon reading incidental observation, and direct experience Such statements of needs are likely however, to vary greatly in worth, depending upon the age, training mental acuity experience, and personal idiosyncrasies of the persons making the analysis Currently one hears much more about the method of group judgment, which has at least two important advantages (1) some of the limitations of individual training, experience, insight, and adjustment are offset by group judgment, and (2) a statement arising from group judgment, particularly if the group is large and composed of persons of considerable prestige, is likely to receive more general acceptance than an individual formulation Both individual and group formulations may be made upon at least three levels (1) the level of personal experience and incidental observation already referred to, (2) restricted applications of the scientific or philosophic methods based upon formal techniques unexplored assumptions, and unimaginative research

and (3) careful integration of the personal, philosophical, and scientific approaches as in a complete act of thought Both individual and group judgment should be improved by the exercise of greater care in collecting data and making inferences in this field

The scientific determination of educational needs It is commonly assumed that science operates in the realm of fact, and philosophy in the realm of value Such a generalization may be true, but misleading There are two schools of thought about values The adherents to these schools are sometimes referred to as *absolutists* and *relativists* The *absolutist* believes that values are present in objects and relationships regardless of whether they are known or not and independent of individual acceptance The *relativist* believes that values are personal, and present or not, depending upon how they are received by the persons concerned According to the first conception of value, values may be made the subject of systematic investigation just as any other fact in nature according to the second conception of value, they lack this stability that characterizes other facts of nature and cannot be subjected to systematic investigation The situation is somewhat further complicated by the fact that, regardless of whether one is a *relativist* or an *absolutist*, individuals differ greatly in the sorts of data that they will accept as a sufficient and adequate basis for believing that a value judgment is present It is not our intent to attempt a solution of this scientific philosophical issue but to call it to the attention of the reader as another important fact that will need to be kept in mind in making value judgments

An excellent example of how value judgments arise can be found in the field of health The generalization that good health is desirable probably arose originally from just plain personal observation of many specific health problems or possibly from philosophical considerations of ultimate values such as health happiness goodness, and the like The thinking was probably both inductive and deductive Having established a point of departure however, through some supreme generalization attention could then be focused upon the discovery of new health values In time the concept was greatly enriched to include the many values that we now associate with modern medicine Once attention is focused upon the means of attaining some value such as health through freedom from disease, then science may search for facts and principles and it is unnecessary to say that science has been very successful in this respect Whether one considers these facts and principles, value judgments or not will depend upon one's particular ways of looking at things

Not only have we applied the methods of science to physical health, but recently members of the medical profession and psychologists have turned their attention to mental health, where some considerable progress seems to have been made Science cannot only indicate that man needs food, clothing, and shelter but it can in many instances indicate the kinds of food, clothing and shelter that will satisfy his needs most adequately

The developments in endocrinology have supplied man with significant information bearing upon the relationship of body parts and functions, the studies of the nervous system—nerve growth and operation—have thrown light upon other aspects of man and his needs Similar information will be found in other fields Few persons who have not thought rather seriously about this realize the extensiveness of the literature dealing with the biological needs of man and their importance as a source of value judgments

The antecedents of happiness, individual efficiency, and social welfare are not as easily objectified as are the facts of health but tremendous progress has already been made even in these areas Unfortunately, much of the information that we all need is buried in technical publications of one sort or another But the technical studies of feelings, emotions, attitudes and ideals all have important bearings upon this important subject It is reasonable to expect that the content of these important studies of human needs will become better known in time and other applications of scientific techniques will follow As the less tangible aspects of life and education are brought under careful investigation, the needs in these areas will be better defined and validated The systematic validation of individual and group wants and needs is of course, a most difficult task and one that will take many years and involve much painstaking investigation but it can be done if workers in education and related fields will set themselves to it

SECTION 3

HELPING TEACHERS AND PUPILS CHOOSE GOALS

Things to keep in mind in choosing goals In the immediately preceding section of this chapter we were concerned with the discovery of needs We wish now to discuss some of the things that teachers and pupils should keep in mind in choosing learning and teaching objectives There are three sets of facts that they will need to have at hand in setting up objectives (1) the broad social needs of man and mankind (2) the needs and developmental status of the pupils, and (3) the function of the school in the social order We wish now to discuss briefly each of these three sets of data that teachers and pupils will need to keep in mind in setting immediate learning and teaching objectives We shall state these controls in question form

1 **Are the goals in keeping with the broad social needs of man and mankind?** The first set of facts that teachers and pupils will need to consider are the broad social needs of man and mankind These have already been discussed in an earlier section of this chapter They supply a sort of anchorage for the whole program We shall not discuss these further now but turn immediately to the developmental status of the pupils which constitutes a second important group of facts that teachers

and pupils will need to keep in mind in setting immediate learning and teaching objectives

2 **Are the goals in keeping with the needs and developmental status of the pupils?** If school education is to be concerned with the all-around development of the whole child, as we have assumed that it is, then we will need to consider pupil development from many points of view physical, social, moral, emotional, and intellectual In considering status we shall desire to ascertain the pupil's development not merely with reference to these broad categories of human activities, but also with reference to the mental controls over behavior The pupil's readiness to *undertake various types of activities and to seek certain goals* will be conditioned by his general maturity, special capacities, and current interests, knowledges, skills, attitudes, ideals and appreciations What will appear exceedingly worth while at one level of development may appear less important at another These are all things that teachers and pupils will need to keep in mind in considering immediate learning and teaching objectives

The interests achievements and capacities of children as determiners of the purposes of education The tasks to which pupils may be set with profit at any particular age level depends largely upon three important factors (1) the pupil's past training, experience and achievement (2) the pupil's present interests and (3) the pupil's maturity or capacity for further growth and achievement If the pupil lacks the appropriate background of training and experience he may not be ready to participate *in a given series of activities* with profit, if he lacks interest in them or in the ends to which they may become satisfying means, his participation in them may be half hearted and consequently inefficient and if he lacks the maturity or capacity to pursue a given course of action, the inevitable outcome is one of failure with its many destructive influences upon child development and personality Studies of the interests, achievements, and capacities of children indicate what pupils with varying amounts of these essential qualities may be expected to do in the different areas of human activities at different levels of maturity, and in the several divisions of the school system

The pupil's past experience as a factor in setting up educational objectives A factor of importance in determining the kinds of objectives that one may set up for different levels of learning includes the kinds and amount of experience that the pupils have had Pupils from different homes, schools, and communities are ordinarily exposed to different sorts of experiences This is particularly true of pupils from different occupational groups, rural and urban populations, and those of different cultural groups Though the average pupil of the United States is exposed to certain fairly common experiences at the different grade levels, differences in experience may be great, owing to the economic status of the family, to sectionalism, and to cultural background The

character of these pupils' experiences and their accruing knowledges, skills, attitudes, interests, and appreciations will determine in a very real way the interests, abilities, and appreciations of these pupils at the next succeeding level of instruction Certain knowledges, skills, attitudes, interests, and appreciations will already have been taught or acquired There may be others that should follow With some, the pupil may have had pleasant experiences and with others unpleasant experiences With some, the degree of skill acquired is adequate, and with some, inadequate, and so forth All of these things will determine what the teacher can do next, and, consequently, his objectives and those of his pupils

The child's interest as a factor in the choice of objectives The old education recognized no discrepancies between the interests of children and adults Children who did not apply themselves to the adult-chosen activities of the school were regarded as lazy, indolent, and short sighted When children expressed their distaste for the things valued by adults they were told that life itself contained many distasteful tasks and the training would be good for them Only gradually have those responsible for the school program come to see that the child's interest in itself is an important factor in pupil behavior and learning Though many persons have contributed to this point of view in education, probably no two persons have contributed more to it than Thorndike and Dewey, one as a psychologist, and the other as a world famous philosopher Time and again these two noted educational leaders and their students and adherents have emphasized the importance of the child's interest both as a factor in the efficiency of learning and as a factor in the child's own well being Most educators, today, recognize the importance of the child's interest as a factor in the determination of the objectives of education

The problem of bridging the gap between the interests achievements, and capacities of children and those of adults Reference was made earlier in this chapter to the use of history as a source of the more remote purposes of education Later, reference was made to the important studies of child development now in progress Both of these approaches to the determination of objectives should, under proper conditions, contribute important information, the former to the understanding of the interests, achievements and capacities of adults, and the latter to the understanding of the interests, achievements, and capacities of children One of the most important tasks confronting those responsible for the educational enterprise is that of bridging the gap between the interests, achievements, and capacities of children and those of adults Studies of these characteristics of children should supply teachers with valuable information about the beginning points in education and the conditions under which the child can be most efficiently educated Studies of adults should supply teachers and supervisors with valuable information about terminal aspects of education The task of the teacher is to start with the child as he finds him and to lead him along the path to maturity as

effectively as possible, as directly and harmoniously as possible, with constant respect for the child's own wishes and personal integrity The more remote purposes of education may not be in the mind of the child, but they must be in the mind of the teacher The teacher's task, however, is to realize those more remote purposes of education with constant respect for the personality of the child, and through efficient leadership rather than through compulsion This goal can ordinarily be efficiently attained by employing the child's present interests to develop socially valued new interests along the course to maturity Many of the objectives of education will concern themselves with bridging the gap between the immaturities of the child and the maturities of adulthood

The discovery of the objectives in the relationships between the interests, achievements, and capacities of children and adults It has been frequently pointed out that the subject-matter and objectives of the old education were thoroughly adult in form, content, and purpose One of the contributions of the new education is its respect for the wishes and abilities of the child More and more under the drive of the new education has the school become a place where children may live in a whole some fashion and participate in and enjoy activities in which they can normally be expected to succeed Each of these approaches to education has its own particular advantages and disadvantages, the problem is to conserve the best in each, and this is one of the most important problems confronting teachers and supervisors today The old education was most certainly in error when it failed to consider the interests, achievements, and capacities of the child Few persons who have not thought of the problem at some length realize the elaborateness of the system which adults have built up to impose their conceptions of things upon children The whole system of rewards, privileges, and punishments now in vogue in our schools is, after all, merely a means of imposing adult-valued subject-matter upon unwilling children The old education was most certainly subject-centered and adult-dominated The proponents of the new or modern education shift the emphasis to the child or learner A small number of ill-advised enthusiasts seemed to believe that the school should be "child centered" without reference to the society within which the school existed Competent leadership and the huge majority of practical workers never made this error The authors of the famous book on the child-centered school indicate clearly in their self-critical chapters that the school must exist within a design and be intimately interrelated with the community The relationship between the interests of children and of adults is of great importance in discovering objectives

The pupil's maturity as a factor in the choice of objectives It probably goes without saying that the choice of goals will depend upon the pupil's maturity and capacity for further growth and achievement In general it would appear that the learning activities of the school should be difficult enough to challenge the pupil to do his best and yet easy enough to be

within his comprehension Not only are differences in mental capacity important for such direct implications, but they are important for their indirect influences on pupil interest It has been known for many years that interest and capacity are somehow related, each being in manner the product of the other Ordinarily, interest in any task or activity will continue only when the activity serves as a satisfactory means to some desired goal, when the activity is within the capacity of the learner, difficult enough to challenge his best efforts, and easy enough to be within his comprehension, and when the outcome is satisfying and meets with social approval The first condition refers to the pupil's system of values, which has already been discussed in the preceding section of this chapter the second, to the problem here under discussion, and the last, to commonly accepted principles of learning The activities in which children are ordinarily interested are those for which they have the necessary maturity and capacity for success When such activities have become associated as means to desired goals of behavior, and the outcomes of such activities are satisfying and socially approved, abiding interests may emerge in the growing child The child's ability to succeed in the task at hand is an important condition for continued effort

Directional-progress goals Goals adjusted to both the terminal needs of society and to the developing needs and maturities of learners are currently referred to as "directional-progress" or "directional-process" or "developmental task goals These goals, as the terms indicate, are continuous guide lines along which the learner proceeds as his needs and maturity permit, arriving eventually at levels associated with adulthood [46]

3 **Are the goals in keeping with the function of the school?** The third set of facts that teachers and pupils need to keep in mind in setting goals relate to the function of the school There are any number of general discussions of the function of the school, but no precise delineation of the school's responsibilities in this respect The essence of these general statements, insofar as they relate to conditions in this country may be stated in terms such as the following the objective of education is to provide opportunities for continuous intellectual, physical, spiritual, and social growth on the part of the individual to the end that he may function more capably and more happily as a member of a democratic society

Two important elements are included in this statement One is the thought that the well-rounded growth of an individual is a basic aim of education This is frequently contrasted with the traditional view of the function of education as the imparting of a body of information, or the mastery of certain specific skills Emphasis is placed, in more recent state-

[46] For further details concerning this concept see
L Thomas Hopkins *Interaction* (Boston D C Heath & Company, 1941) pp 5 6, 11, 13, 431 436, 440 445
William H Burton *The Guidance of Learning Activities* (New York, D Appleton Century Company, Inc, 1944) pp 83 84, 91, 248 249, 409 412, 416 417, 456

ments of the purposes of education, upon the development of the whole personality of the individual in socially acceptable ways The second important element in this statement is its reference to the democratic function of education Education in a democratic society such as ours has functions somewhat different from those of an autocracy, monarchy, or dictatorship

Dewey emphasizes the social function of the school According to Dewey, pupils in the school are to be regarded as "a socially participating group whose activities proceed out of the social needs of the group and are aimed at helping the pupils to understand their nature and significance and to satisfy them" The following statement expresses Dewey's conception of the educative process, as practiced in his laboratory school at the University of Chicago [47]

In the theory of the school the first factor in bringing about the desired coordination was the establishment of the school as itself a form of community life It was thought that education could prepare the young for future social life only when the school was itself a cooperative society on a small scale The integration of the individual and society is impossible except when the individual lives in close association with others in the constant and free give and take of experience and finds his happiness and growth in processes of sharing with them

The idea involved a radical departure from the notion that the school is just a place in which to learn lessons and acquire certain forms of skill It assimilated study and learning within the school to the education which takes place out of school when living goes on in a rich and significant social medium It influenced not only the methods of learning and study, but also the organization of children in groups an arrangement which took the place occupied by grading It was subject matter not pupils that was thought to need grading the important consideration for pupils was that they should associate on the terms most conducive to effective communication and mutual sharing Naturally, it also influenced the selection of subject matter for study the younger children on entering school engaged, for example in activities that continued the social life with which they were familiar in their homes As the children matured, the ties that link family life to the neighborhood and larger community were followed out These ties lead backward in time as well as outward in the present into history as well as into the more complex forms of existing social activities

Thus the aim was not to "adjust" individuals to social institutions if by adjustment is meant preparation to fit into present social arrangements and conditions The latter are neither stable enough nor good enough to justify such a procedure The aim was to deepen and broaden the range of social contact and intercourse of cooperative living, so that the members of the school would be prepared to make their future social relations worthy and fruitful

It will be noted that the social phase of education was put first This fact is contrary to an impression about the school which has prevailed since it was founded and which many visitors carried away with them at the time It is the idea which has played a large part in progressive schools namely, that they exist in order to give complete liberty to individuals, and that they are and must

[47] Katherine Camp Mayhew and Anna Camp Edwards *The Dewey School* (New York D Appleton Century Company, Inc, 1936), pp 466 467

be "child-centered" in a way which ignores, or at least makes little of social relationships and responsibilities In intent, whatever the failures in accomplishment, the school was 'community-centered' It was held that the *process* of mental development is essentially a social process, a process of participation traditional psychology was criticized on the ground that it treated the growth of mind as one which occurs in individuals in contact with a merely physical environment of things And as has just been stated the *aim* was ability of individuals to live in cooperative integration with others

The point of view expressed in the preceding statement is an outcome of Dewey's philosophy and psychology, reinforced by the elements of strength in the writings of such thinkers as Rousseau Froebel, Pestalozzi, and Herbart He emphasizes the belief that children will be most effectively educated if they face problems of significance to themselves, consider means of solving them, make choices among possible procedures, make mistakes and achieve success, and go on to other and more difficult problems under the drive of felt need and social inspiration, rather than master subject matter in the traditional end-in itself sense Such an education will develop free individuals in a society that he and his fellows create and reconstruct

The Educational Policies Commission emphasizes the importance of schools in democracy Democracy and education have developed together The natural environment of America has been particularly congenial to the development of free public schools for the children of all the people The emphasis of democracy upon the general welfare, civil liberty, government by the consent of the governed, appeal to reason, and the pursuit of happiness are also the purposes of the modern school The Educational Policies Commission has emphasized the interrelatedness of democracy and education in achieving each of these goals Democracy in government has been a long sought ideal The efficient functioning of a democracy is dependent, however, upon a well-informed, unprejudiced free electorate willing to settle problems by appeal to reason rather than force Popular government without universal education is a travesty Democracy endows the individual with important rights and expects him to assume certain responsibilities Education is the ultimate guarantee of these rights and responsibilities Democracy repudiates violence, schools teach the way of reason The general welfare is decreased by social lag "An important function of education, as an agent of the general welfare, is to encourage a continuing and critical appraisal of the suitability of all existing social institutions to the needs of people in the current social scene" Opportunity to secure happiness is also a democratic ideal, but happiness involves initiative and wisdom in making judgments Schools provide the experience that makes probable the realization of happiness Both democracy and education are concerned with the abundant life The ability to claim and live the abundant life is not innate, it must be acquired

The above paragraph is a very brief summary of the Educational

Policies Commission statement of the close relationship between democracy and education [48]

The Commission on Teacher Education summarizes the school's responsibilities as follows [49]

In performing its basic responsibility the American school should demonstrate the characteristics that are esteemed by our culture and desired for our children It should respect itself as well as other institutions it should cooperate with the latter to common ends, it should be guided in decisions by the use of its own powers of reason The school neither can nor should of course, be a complete law unto itself it is an integral part of a greater social whole, it is always and properly, subject to some larger social authority Yet it should possess the same sort of freedom that other institutions and all citizens in a democracy require, and it should exercise this freedom positively Here, again, the importance of balancing centralization with decentralization of encouraging spontaneity and self discipline, of planning rationally in relation to the imperatives of given situations, is evident Each school should share in determining what social and personal needs are pressing so far as the children of its particular community are concerned It should share in deciding which of these needs, and in what degrees it should itself undertake to satisfy taking into account the function and educational potentialities of other social institutions—of home and church, for example Finally it should have a voice in determining how it is to be equipped and how its program is to be arranged in the interest of achieving the purposes agreed upon Remote control of the here are your orders variety is inconsistent with democratic education, reasonable procedures involving widespread participation in planning will not only result in proper coordination and such uniformity as is desirable, but will stimulate local initiative and sensitive response to particular problems and opportunities

The Educational Policies Commission in a discussion of the nature of education and its obligations, emphasized the following statements [50]

1 The function of education is to guard the social heritage and educational values
2 Education embraces knowledges of the practical social and fine arts
3 Educators carry ethical responsibilities
4 Education includes the training of body and spirit
5 Education is committed to the maintenance and improvement of American democratic society
6 It must prepare youth for associational life and activities
7 It must aid in upholding social values

The primary business of education, in effecting the promises of American democracy is to guard cherish advance and make available in the life of coming generations the funded and growing wisdom, knowledge and aspirations of the race This involves the dissemination of knowledge the liberation of minds, the development of skills the promotion of free inquiries, the encouragement of the creative or inventive spirit and the establishment of wholesome attitudes toward order and change—all useful in the good life for each person, in the

[48] Stoddard and others *op cit*, pp 7-37

[49] Commission on Teacher Education *Teachers for Our Times* (Washington D C, American Council on Education 1944) pp 110 111

[50] Educational Policies Commission, *The Unique Function of Education in American Democracy* (Washington, D C, National Education Association, 1937) pp 71 ff

practical arts, and in the maintenance and improvement of American society as our society, in the world of nations So conceived education seems to transcend our poor powers of accomplishment It does in fact, if perfection be expected, but such is the primary business of public education in the United States, *theory supports it, practice inadequately illustrates and confirms it*

The National Association of Secondary-School Principals basing its report upon the summary of a report by the Educational Policies Commission lists the following ten imperative needs of youth [11]

1 All youth need to develop salable skills and those understandings and attitudes that make the worker an intelligent and productive participant in economic life To this end, most youth need supervised work experience as well as education in the skills and knowledge of their occupations
2 All youth need to develop and maintain good health and physical fitness
3 All youth need to understand the rights and duties of the citizen of a democratic society and to be diligent and competent in the performance of their obligations as members of the community and citizens of the state and nation
4 All youth need to understand the significance of the family for the individual and society and the conditions conducive to successful family life
5 All youth need to know how to purchase and use goods and services intelligently understanding both the values received by the consumer and the economic consequences of their acts
6 All youth need to understand the methods of science, the influence of science on human life and the main scientific facts concerning the nature of the world and of man
7 All youth need opportunities to develop their capacities to appreciate beauty in literature art music, and nature
8 All youth need to be able to use their leisure time well and to budget it wisely balancing activities that yield satisfactions to the individual with those that are socially useful
9 All youth need to develop respect for other persons, to grow in their insight into ethical values and principles, and to be able to live and work cooperatively with others
10 All youth need to grow in their ability to think rationally to express their thoughts clearly, and to read and listen with understanding

Statements such as the above provide only a very general definition of the functions of the school, but they are important nonetheless in providing general orientation On the other hand detailed prescription is not in keeping with the democratic way of life to which we as a people are committed Not is the school a static institution with fixed relationships Possibly the following questions will aid teachers and pupils in choosing goals commensurate with the function of the school

1 Would the goal if achieved promote the democratic way of life?
Free public education and democracy have grown up together The school is a creation of and instrument for the democratic way of life The school more than other institutions is presumed to promote democracy in human relationships

[11] National Association of Secondary School Principals, *Planning for American Youth* (Washington, D C, National Education Association, 1944), p 10

2 Would the goal if achieved promote good citizenship?
Government of, for, and by the people presupposes an intelligent citizenry The school has a primary responsibility in promoting good citizenship

3 Would the goal if achieved promote the all around development of the whole child?
The state is concerned with the education of the whole child The trend in this direction seems well established

4 Would the goal if achieved promote the general welfare?
The counterpart to question 3 is question 4 Not only is the school responsible for the all around development of the individual child, but for the promotion of the general welfare One of the constitutional supports for free public education will be found in the general welfare clause

5 Is the goal within the educational potentialities of the school?
The school is only one among many educational institutions, to wit, the home, church, trade guilds and unions, industry service clubs and many other private and governmental agencies What is undertaken in the school should be within its own educational potentialities and not already adequately performed by other agencies

Relation of the school and other social agencies An important item to be borne in mind in considering educational objectives is the fact that the school is only one of the many agencies of the community which affect the nature and direction of the development of the individual We now recognize that many elements in the community life over which the school has little or no control determine in a considerable measure many of the important characteristics of the youth of a community Among these we find the home, recreational facilities, industry, the press, the radio the church neighborhood groups, social agencies, courts, the police, health regulations, and other agencies of control It is important for the school to recognize clearly its peculiar educational function in the complex matrix of social forces The constant study of the direction and progress of society must be the concern of the school so that its program may be intelligently fitted into this matrix of social institutions and directed toward the development of social patterns and toward the reconstruction of the social order to higher levels of efficiency The school must be alert to counteract in a constructive manner the unwholesome effect of the destructive influences found in every community and substitute more creative conditions of living This is what is implied by the reference to coordinating councils in Chapter III

SECTION 4

CRITERIA FOR JUDGING THE ADEQUACY OF STATEMENTS OF EDUCATIONAL OBJECTIVES

The characteristics of a well-formulated list of objectives Many aspects of objectives have been discussed in the preceding pages of this chapter

Some of the more important characteristics of a well-formulated statement of objectives are summarized below

1 *They should be clearly stated*

Almost everyone has some conception of pupil and community needs but these conceptions may be quite nebular in many instances and need careful definition Choosing the most effective form of statement is not an easy matter Words do not always mean the same thing to all people or even to the same persons at different times

2 *They should be socially desirable, reflecting both individual and group needs*

There are really three suggestions contained in this statement *first*, that objectives should reflect social needs, *second*, that they should reflect both individual and group needs, and *third*, that they should do this accurately

3 *They should be reasonably complete*

The list of objectives may be excellent as far as they go but incomplete One of the advantages of having objectives formulated by communities and groups of persons is that this procedure provides one check at least on highly individualistic objectives

4 *They should be acceptable to those concerned*

Values may be considered *absolute*, and subject to scientific validation or *relative* and dependent upon personal preference for their acceptance A value may be well validated and acceptable to most adults but not acceptable by youth or very young children It may be acceptable to school people and not to parents and so on The movement for the cooperative listing of objectives tends to produce objectives of greater and more general acceptability

5 *They should be coherent and internally consistent*

Many statements of objectives are fragmentary, lack unity, and internal consistency The lack of internal consistency in various statements of objectives has been the subject of considerable criticism Not infrequently one finds side by side in the same statement many goals that would seem to lead in somewhat different directions if not actually in opposite directions Besides having the quality of consistency the statement as a whole should have unity and coherence

6 *They should take cognizance of the principle of relative values*

Time, money and energy are not limitless There are many objects that it would be satisfying to have were time, money, and energy limitless commodities Every objective must be considered, therefore, in relation to every other objective

7 *They should be in a form that will facilitate the choice of learning and teaching activities*

There have been many formulations of objectives Many people believe that these many formulations have not influenced practice as much as they should Most of them lack the dynamic qualities that impel action

8 *They should be attainable and within the interest range, and capacity of the learner and the available resources*

Three facts are emphasized in this statement objectives must be, *first* of all, commensurate with the maturity and capacity of the learner, *secondly* within the interest range of the learner, and *third*, within limits placed by the resources available

9 *They should be developmental, have sequence, and lead on from one goal to another*

Growth is a continuous process Accordingly there must be continuity and relatedness in the purposes of education One purpose should lead to another and so on to the more remote values of life and education There is too much disconnectedness in most statements of objectives

10 *They should be susceptible of evaluation*

As far as possible the goals of education should be stated in a form such that progress in their attainment may be readily ascertained Knowledge of progress is an important condition for effective learning

SECTION 5

SOME FINAL CONSIDERATIONS TO BE KEPT IN MIND IN FORMULATING OBJECTIVES

Objectives are not easily identified It is relatively easy to ascertain the wants of persons but difficult to identify their needs Needs are not sensed directly, but are inferred from collectible facts about human beings There are many errors both of fact and of interpretation Before one can reach dependable judgments about the needs of persons one must have substantiated facts about human nature and the social order To get these facts is, if well done, a difficult task demanding much information and keen insight People differ greatly in what they see in experience In the realm of remote objectives the democratic way of life is, for many the ultimate goal To some, human welfare and happiness are the ultimate goals, to others the goals are service and sacrifice All such statements are inferences and being inferences they are subject to verification Even if verified, the problem of relative desirability still remains Many of our difficulties in choosing teacher and pupil goals arise out of the ever present problem of relative values There are many people with opinions about needs and desirable objectives but whether or not these opinions represent valid conclusions is not easily demonstrated

Not all people view objectives alike People differ greatly in the immediacy of the objectives which they would set both for themselves or for others Most people, except possibly the extremely far sighted, are concerned with their immediate aches and pains, needs, wishes, problems, difficulties, and frustrations, and assume that all others think likewise To a rather large number of persons the more remote purposes of education are just so much academic theorizing and certainly not very real, tangible, or important Their own more concrete goals are extremely real, tangible, and immediate It is equally true, however, that there are others who find help and direction from the highly generalized and remote purposes of education When we ask, therefore, what the objectives of education are or should be, the answer will depend then upon the persons concerned and how they look at things We need to consider both aspects of the matter

We need to distinguish between teacher and pupil objectives Much has been said in the immediately preceding section of this chapter about the discovery and validation of pupil needs Pupil needs can be looked at from two points of view (1) from the pupil's point of view, and (2) from the adult's point of view The difference between these points of view will be very great when we think of very young children on the one hand and fully matured middle-aged people on the other As youngsters pass from elementary school into high school, college or adult extension classes, the gap narrows Even at the high school and college level, the gap is still, however, very great Accordingly, teachers, parents and supervisors always have the problem of knowing what to do in satisfying the pupil's present interests and needs, and at the same time of leading on to more mature interests and activities There are those who believe that children will grow up naturally and satisfactorily if left to their own whims and fancies Few would, however, allow very young children to experiment with very dangerous mechanical devices, deadly poisons, or certain death Admittedly child life is frequently spoiled by overly anxious adults They want children to become adults too soon and too rapidly The child resists and a standing battle is begun

We hope that each child may have some part in discovering his own needs and in choosing goals The trend is very definitely toward basing instruction on purposeful pupil activity And to get purposeful pupil activity the pupil must participate in the consideration of his needs and in setting goals Examples of how some teachers have secured the assistance of pupils in ascertaining their needs were given earlier in this chapter One can ask pupils to describe the sorts of persons they would like to be ways that they might have fun or help other people, the things that they like to do and why, the difficulties they experience in specified activities and the like For an extended discussion of pupil participation in educational planning, see Giles *Teacher-Pupil Planning*[52]

Our problem is a dual one (1) discovering through close contact with children what their needs interests and aims are and their varying states of readiness and (2) stimulating young people to other activities based on a study of their needs that may facilitate growth The work of the school will be facilitated, we believe when it is remembered that both teachers and pupils have purposes

General versus specific learnings A point has been made in a preceding section of this chapter that objectives may be either abstract or concrete Many of the objectives of education are stated in very abstract and highly generalized terms The attainment of these highly generalized abstract goals appears to introduce certain difficulties not sensed in the more specific types of learning The methods by which many attain highly generalized abstract goals have been the subject of considerable controversy Some contend that learning is specific and not general,

[52] Giles *op cit*

and that there is a certain psychological futility in stating objectives *in this general form* It is undoubtedly true that learning is both general and specific In making judgments about what to do in the course of seeking the abstract values of life, one must be guided by both the principles of action that one holds to be true, and the specific aspects of the immediate situation including the persons involved—aspects which limit action It is true that when learning is pursued without due attention to one or the other of these considerations, it is difficult to get from abstract values to situations and *vice versa* The proverbial gap between theory and practice arises from stating principles divorced from situations or from considering specific ways of doing things in specific situations without the use of generalizations To most persons the limiting aspects of the immediate situation are so real and discernible that they become the only potent determiners that operate in making of decisions, there are, however, persons for whom the principle is the potent determiner For example, one may be honest in one situation and not in another, or honest when the situation calls for something else Returning to the problem of generalized objectives—their attainment would seem to be facilitated when the interrelatedness of general principles and specific aspects of situations are better understood

Most pupils have very little opportunity in schools as at present conducted to learn about means ends relationships in life situations where the *details* of experience are vividly perceived The learning of subject matter and participation in activities are both frequently ends in themselves and not adequately connected with the goals of life and education The teacher may see certain rather elementary means ends relationships but seldom provides adequate training in this respect Immediate and remote goals, concrete and abstract values, and generalized and personalized objectives are all closely interwoven in the pattern of life as are goals, principles, and situations The degree to which these function in the control over behavior will probably depend in part upon the personal idiosyncrasies and capacities of the person concerned, and in part upon their formal education, but the teacher has definite responsibility in promoting fundamental understandings in this area Whether general or specific objectives are to be preferred will depend partly upon the approach made to the analysis of learning-teaching situations

SECTION 6

A SUMMARY STATEMENT OF HOW TEACHERS, PUPILS, PARENTS, AND ADMINISTRATIVE OFFICIALS MAY DETERMINE EDUCATIONAL OBJECTIVES

The following summary statement of procedure may be helpful

1 Become acquainted with the more remote generalized values of life and education through reading, reflection, and observation

2 Become acquainted with child nature and needs through the careful study of the materials in this field
3 Consider the function of the school and its relation to other educational agencies
4 Ascertain the felt needs, current problems remote goals, and immediate interests of the pupils concerned through the use of appropriate data-gathering devices
5 Secure similar statements from parents and community agencies
6 Ascertain pertinent information relative to the developmental status of the pupils concerned intelligence, aptitudes, interests, needs, achievements, and the like
7 Become familiar with the many currently accepted immediate objectives of education for/of different sorts of pupils under different conditions, and for different more remote purposes
8 Examine these for completeness logical consistency, and applicability to the immediate situation
9 State the objectives for/of the pupils immediately at hand
10 Arrange the goals in sequence

There are other procedures than that given above, the one here, however, may prove helpful

Chapter summary *It has been the purpose of this chapter to emphasize* the importance of objectives in guiding the instructional activities of teachers pupils, parents, and supervisors, and to discuss some of the problems associated with the discovery, validation, and formulation of educational objectives Two broad groups of objectives have been discussed (1) the more remote generalized abstract objectives which aim to provide background and orientation for the school's instructional activities, and (2) the immediate personalized and individualized objectives of teachers, pupils, parents, and supervisors that should characterize on-the-spot planning Both types of objectives are important In attempting to help teachers, pupils, and supervisors discover, validate, and formulate objectives, the following topics have been discussed (1) types and levels of objectives, (2) means of discovering pupil and community needs, (3) things to keep in mind in choosing goals, (4) helps in formulating objectives, and (5) some criteria for evaluating statements of objectives

Exercises

1 Individual or small committee reports may be made upon any important current publication dealing either with (*a*) statements of objectives of education, or (*b*) methods of deriving aims Any and all levels may be included

2 Examine the curriculum handbook for any city or state, or that part of the course of study documents which presents general aims and methods of deriving these aims Critically evaluate

a The soundness of the general, remote, societal aims stated
b The soundness of methods used to determine these aims (Often this is omitted or not actually carried on at all)
c The clarity of language and the form used

3 Similarly examine the sub-divisions of a general source (subjects, areas of experience, units), or the courses outlined for these divisions separately and

similarly evaluate the specific and more limited aims and methods of deriving them

4 Report for class analysis the methods used to determine objectives and the statement of objectives set up in any local program of curriculum development in which you may have participated

5 What are the probable reasons for the neglect of aims and objectives by large numbers of teachers?

6 Why are aims or objectives usually stated very badly, not merely as to language and form, but as to content?

7 How do you account for the long continued persistence of aims which have long since lost any usefulness for present schools or the society which the schools serve?

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VI

The Appraisal of the Educational Product

SECTION 1

THE BASIS OF APPRAISING EDUCATIONAL PROGRAMS

The traditional basis for appraising educational programs has been an analysis of data about the excellence of the school plant, the amount of money spent, the training of the teachers, the number of books in the library, the size of classes, and similar extraneous items The inadequacy of such an approach is quite obvious particularly when divorced from appraisal of the educational product A beautiful school building, for example, may house a curriculum that is very narrow and limited, teachers may have a high level of academic training but lack skill in guiding the learning activities of the pupils the number of books in the library may be large, but the selection may have been made on a very unintelligent basis The reverse of these conditions may also be found There are many apparently excellent educational programs being conducted in schools that are inadequately housed, where the lack of finances makes it impossible to pay satisfactory salaries, and where the educational materials are very limited It is of course true that there is a general relation between the excellence of a program and the kind of provisions a community can make, but the correlation is by no means perfect

It is now generally recognized that a more satisfactory basis for evaluating an educational program is to study it 'in terms of its philosophy of education, its individually expressed purposes and objectives, the nature of the pupils with whom it has to deal, the needs of the community which it serves, and the nature of the American democracy of which it is a part "[1] All American schools are instrumentalities for transmitting and improving our American heritage and our American ideals There is no single best way of achieving this goal Each school therefore should be free to determine its own educational policies and program for achieving the ideals of American civilization

The ultimate appraisal of the quality of the educational program of

[1] Evaluation of Secondary Schools General Report of the Cooperative Study of Secondary School Standards (Washington D C 1939) p 57

any community grows out of the appraisal society makes of the behavior of the product of the school in the social situations encountered through out life It should be recognized that the behavior of the individual is conditioned both by the consciously directed learning experiences pro vided by the schools and by the almost wholly undirected, often unco ordinated, influences of such informal educative agencies of the community as the church, recreational facilities, civil authorities, business, the home, the press, and many others It is an unfortunate fact that the negative effects of some of these institutions often counteract the con structive efforts of the school A well-planned program of character de velopment, for example, may produce few positive results because of the stronger influences of unwholesome social and moral conditions in the immediate environment On the other hand, the activities of the com munity can be well integrated and should be made to supplement each other very effectively

The tendency has been for society to expect the school to assume not only its traditional function of transmitting the social heritage but also many of the educational functions for which in the past other social insti tutions have been responsible Numerous instances can be given Schools in some states are now required by law to give instruction in humaneness patriotism and citizenship—outcomes affected by many influences in the community Most schools now carry on programs of character training, formerly a major function of the church and the home Some schools now offer courses in social etiquette, sex education, safety education, fire prevention, and similar training for which the home was formerly held responsible The system of medical examinations required in many schools and the provisions made by some schools for corrective treatment demonstrate the extent to which society expects the schools to assume responsibility for the physical development of its youth The guidance carried on in many schools by highly trained specialists is a function formerly undertaken by parents and friends

It is obvious that the school cannot rightfully be held accountable for the quality of many outcomes in these varied fields because in the com munity there are conditions affecting them over which the school has little, if any, control The school, however, is a convenient place in which to study under fairly favorable conditions the characteristics of large numbers of children At the same time the school must scrutinize the behavior of its product in life outside the school Such a study supplies fundamental information which can be used by the community in the further development of the total educational program

The effectiveness of a school program depends on its ability to set up immediate objectives that will lead to the achievement of ultimate educa tional objectives Ultimate objectives are those characteristics of the individual that are manifested in wholesome, desirable methods of adult living In general they may be defined as those qualities, attitudes, and

abilities that are essential for efficient living in an evolving, industrial, democratic society The immediate objectives of the school are the direction and development of desirable forms of behavior, consistent with ultimate objectives, as the individual progresses through the school The work of any class is largely determined by these immediate objectives To the degree that they are valid they will lead to the attainment of the ultimate goals Under such conditions it may be assumed that any measure of the characteristics of the pupils at a given level of the school is an indirect index of the extent to which ultimate goals are being achieved

The results of a typical evaluation program An interesting and revealing account of an effort to assess an educational program by evaluating its product is given in the reports of the *Regents Inquiry into the Character and Cost of Public Education in the State of New York* By a wide variety of techniques, information was gathered about the "social competence" of youth at the time they were leaving school The results of this investigation were stated in part as follows -

Numerous and varied though its positive effects have been the educational program has not been equally successful with all types of young people It has done more on the whole for boys than for girls It has been more effective with the academically able pupils than with those whose talents have lain in other directions It has provided better for city pupils than for boys and girls in the small towns and the country

Moreover the current program has not always swept clean in those areas in which its positive results are most apparent Though it has equipped most young people with the tools of learning, it has allowed appreciable numbers of boys and girls to leave school without having learned to read and write and use arithmetic well enough to meet normal out of school needs It has been most effective, in the main, with young people whose abilities are of a bookish sort but even among boys and girls of marked academic ability it has failed to challenge many to their best achievement

The present educational program has notably failed to develop certain types of competence Though it has supplied much academic information, it has neglected to equip boys and girls with pertinent knowledge about their local communities their chances to make a living, and the educational opportunities open to them once they leave the high school As a result thousands of young people just out of school are equipped to take no well informed part in civic affairs, they look at random for jobs which may never materialize, they plan for further education which they can never attain and which would often be of little use to them even if they could get it

Despite some success in acquainting boys and girls with their rights as citizens, neither the schools nor any other social influences have developed in these boys and girls an active social conscience High-school pupils on the point of leaving school display on the contrary, a disturbing inclination to evade social responsibility, and young people who have left school undertake few activities which will contribute in any way to the public good

[2] F T Spaulding *High School and Life* (New York, McGraw Hill Book Company Inc 1938), pp 118 119 A similar discussion of pupils at the end of the elementary school is included in a report, I J Brueckner and others *The Changing Elementary School* (New York Inor Press 1939)

Nor have any large numbers of these young people attained standards of enjoyment which lead them to make particularly discriminating use of their leisure time What boys and girls read when they are free to choose what they will read, what they like to listen to on the radio, what they see in the movies, give evidence of little discriminating preference, except the preference for something that is exciting romantic, or 'funny"

In the field of competence which is most on the minds of the boys and girls themselves—vocational ability—the present program seems to have done least of all for the young people who have been subject to it The majority have developed no salable vocational skills, they have learned nothing about the kinds of work in which they are most likely to be successful, they do not know how to make the most of the jobs they eventually get

In all these matters the present educational program fails large numbers of high school pupils in New York State It falls farthest short of developing competence on the part of the boys and girls who most need help—the young people from homes low in the social scale, whom financial need or lack of encouragement or lack of success with traditional academic work drives out of school before they have earned a high school diploma

On the basis of the information thus secured and of an analysis of the influences to which the students had been exposed—including the curriculum, instruction, materials of learning conditions in the community and the social trends in general—certain definite recommendations for bringing about an improvement were presented The approach represents the point of view presented in this volume

Integration of evaluation and learning Evaluation should also be an integral part of the learning process and it should grow out of or emerge from that process Although for some purposes it is necessary for the teacher or other community agency to evaluate some phase of the pupil's personality, the learner should be led to see the importance of evaluating his own behavior and traits in the light of desirable educational objectives and social standards In many instances the pupils with the help of the teacher can formulate evaluative criteria of their own The expert in evaluation should not prescribe specific means and methods of appraisal to be used in instruction but rather should assist the teacher to devise techniques of evaluation that will function as an integral part of teaching-learning procedures Evaluation should be continuing, and new methods of appraisal should be devised as new needs arise

Cook has indicated that an evaluation program should meet certain criteria if it is to be effective in promoting learning in a given field He lists the following points [3]

a The goals and directions in which development is to take place must be agreed upon

[3] Statement by Walter W Cook in *Teaching Language in the Elementary School, Forty Third Yearbook* of the National Society for the Study of Education (Chicago Department of Education University of Chicago, 1944) Part II, pp 197 198 By permission of the Society

b How and when goals are to be achieved and the dangers inherent in such a listing of goals from the standpoint of instructional organization must be understood

c The evaluation instruments used must lead the learner constantly to a clearer and more objective understanding of the goals and to an increased acceptance of them as his own

d The evaluation instruments should tend to reveal to the learner clearly and in detail the inadequacies of his performance

e The evaluation instruments should furnish the teacher with basic information necessary for planning future learning procedures They should reveal in so far as is possible the thought processes of the learner

f The evaluation instruments should encourage the formulation of constantly improving statements of goals by the learner as insight develops

g Behavior should be evaluated in situations that are sufficiently broad to require the integration of the elements involved comparable to that in functional situations

h The program should be based on the fact that the most effective evaluation, from the standpoint of learning is that which is carried on by the learner of next importance is evaluation by the teacher and fellow learners since their assistance may be given the learner directly and last in importance is evaluation by an agent outside the classroom, since the chances of influencing the learner are here more remote

i Evaluation instruments should be available to the teacher and learner whenever the learning situation requires them and not according to the calendar

j Measuring instruments should not be used in evaluation unless they meet the criteria of sound evaluation procedure

SECTION 2

THE ELEMENTS OF APPRAISAL PROGRAMS

Emphasis on educational objectives The selection of means of appraising the educational products depends on the conception one has of the nature and scope of outcomes, which may be regarded narrowly in terms of knowledges and skills, or broadly in terms of all of the accepted objectives of a field of instruction Most of the present tests of achievement in the various subjects deal with a narrow range of outcomes, standard tests in arithmetic for example, are limited largely to the measurement of ability to compute and to solve verbal problems Recently, several have been devised that deal with the informational and sociological functions of arithmetic Similar limitations exist in regard to the extent to which most of the tests of reading, spelling, English, social studies, languages, and other subjects measure the range of desired outcomes Many were originally devised as measuring devices, and in their construction little attention was paid to the value of the educational objectives with which they dealt The use of these tests had a marked influence on teaching Teachers, whose skill was often rated on the basis of the scores made by the pupils, consequently stressed the types of outcomes measured by the tests, and, as a result, teaching tended to become as narrow and as limited

as the specific objectives dealt with in the meager range of outcomes that were to be measured

The work of Tyler,[4] Eurich,[5] Brueckner,[6] and others has brought to our attention the desirability of using methods of evaluation that determine the extent to which all of the major desired outcomes of instruction are being achieved This point of view has not only influenced instruction in a favorable way but has also led to important constructive developments in the use of new means of appraising educational outcomes

As a basis for the development of means of appraisal, Smith and Tyler set up the following list of ten major educational objectives [7]

1 Development of effective methods of thinking
2 Cultivation of useful work habits and study skills
3 Inculcation of social attitudes
4 Acquisition of a wide range of significant interests
5 Development of increased appreciation of music art, literature, and other esthetic experiences
6 Development of a social sensitivity
7 Development of better personal social adjustment
8 Acquisition of important information
9 Development of physical health
10 Development of a consistent philosophy of life

These ten objectives are a synthesis of many similar statements that have been issued in recent years They are regarded as basic to all areas of instruction in the field of general education They are more specific as well as more comprehensive than most earlier formulations and include all aspects of personality They indicate very clearly the general kinds of outcomes that should serve as goals of instruction at all levels Statements of objectives for specific curriculum areas can be made on the basis of this general list The 3 R's are implicit in items 2 and 8 in the list

Experiments have demonstrated the fact that the attainment of any one of these objectives does not insure the achievement of all of the others It seems clear that the only way to be sure that all of them are reached is to provide for instruction dealing with all of them Obviously, the nature of the objectives determines the nature of the means of appraisal to be employed A test of information, for example, can well be a paper-and-pencil examination, whereas a test of ability to use the microscope ordinarily requires the actual appraisal of the use of the instrument itself in a test situation The present lack of means of evalu-

[4] R W Tyler *Constructing Achievement Tests* (Columbus Ohio Ohio State University Press 1934), pp 6 7

[5] A E Eurich in *Studies in College Examinations* (Minneapolis Minn University of Minnesota Press, 1936) pp 51 66

[6] L J Brueckner, 'Intercorrelations of Arithmetic Abilities *Journal of Experimental Education*, Vol 3 (September 1934), pp 42 44

[7] Eugene R Smith, R W Tyler, and members of Evaluation Staff *Appraising and Recording Student Progress* (New York Harper & Brothers, 1942), p 18

ating many educational outcomes is largely due to two factors, namely, (1) the failure to relate measurement to outcomes and (2) the difficulty of inventing suitable appraisal techniques No one supervisory procedure would lead more quickly to the enrichment and improvement of teaching than bringing, through appropriate techniques, the broad range of educational outcomes to the attention of teachers and helping them to discover the status of their pupils in relation to those outcomes

The planning of an appraisal program a cooperative venture Any program for appraising the characteristics of the educational product should be carefully planned and systematized Such programs may range in scope from one that is organized by a state department to evaluate a state system of instruction to one that may be devised by the teacher of a class to appraise the work of an individual pupil They may deal with achievements in one or more areas of learning, with the analysis of behavior both in and out of school

The greatest value of such a program will accrue if it is carefully integrated with a planned program for the improvement of learning So that teachers may be aware of this point, it is desirable to secure their participation in the planning and administration of the appraisal program They should have a part in the determination of the nature and scope of the testing program, in the selecting of the tests, in the giving and scoring of the tests, in the tabulating and scoring of the results and in the planning of the steps to take following the analysis and evaluation of the results Likewise they should participate in the development and carrying out of plans for gathering other kinds of information concerning the educational product These general procedures should be supplemented by a cumulative and continuous appraisal of the behavior of individual pupils by the classroom teachers, since evaluation should be regarded as an essential integral part of the learning process To this end self appraisal by pupils is fundamental

The following steps in the organization and use of an appraisal program should be recognized by the supervisor and by the corps of teachers

1 Formulate clearly the purposes of the evaluation program This should be a cooperative enterprise participated in by all who are concerned with the growth and development of the learner parents pupils teachers and all others whose opinions should be considered Attention should be given first to the setting up of educational objectives to be used as the basis of instruction Then the group should select areas of instruction or experience about which reliable information must be gathered in order to appraise the product of the schools The need for information may be the result of shortcomings observed in the behavior of students that are regarded as of serious enough import to be investigated thoroughly The appraisal program may also be conducted as a means of gathering general information on a variety of points for its own value rather than because of any evident faults or shortcomings, noted by the group Strengths and weaknesses in the product not suspected can thus be brought to light

2 Consider the types and the possible sources of information that should

be secured about the pupils The sources may be school records, reports by teachers or parents, results of tests, court records, and so forth

3 Select means that may be used to secure the desired information These may consist of any of the kinds of devices that are discussed in this chapter, varying from standard achievement tests to the analysis of records of social agencies The sources and devices selected should yield accurate, reliable information

4 Prepare adequate instructions which will explain in detail the procedures to be used in the fact gathering program

5 Give the necessary preliminary training to those who are to participate Clerical workers can undertake the analysis of the available school records When trained examiners are not available teachers and principals must be taught how to administer the tests The cooperation of specialists of social and civic agencies not under the direct control of the school should be secured and the essential data in their records and reports should be analyzed The cooperation of parents should be secured in this fact-gathering program

6 When tests have been administered and the other essential kinds of data have been gathered tabulate the data by classes and by schools, and then summarize the findings for all classes and evaluate the results The strengths and weaknesses of the educational product should be determined by comparison with available standards Manuals that describe in detail the methods of scoring tests and tabulating and interpreting the results are available for practically all tests The supervisor must be prepared to assist the teachers or others at all points in the analysis of the results

7 Present the information obtained in the form of a report, including suitable tabular and graphic exhibits Point out the strengths and weaknesses revealed by the program of evaluation

8 Consider with the group concerned possible reasons for unfavorable results and then set up with the group a series of investigations to establish the validity of factors thought to be at the root of the matter

9 When these have been determined, carry out an improvement program for removing those factors that have been demonstrated to be the source of the difficulty As has been indicated in an earlier chapter these may be resident in the pupil himself, they may be located in the instruction and in the personality of the teacher they may be in the curriculum, they may be in the environment both in and out of school, including the plant, the community, and the materials of instruction

Steps in the development of means of appraisal of outcomes The recognition of the importance of educational objectives as the basis of appraising instruction should lead the supervisor to select methods of evaluating important outcomes, and when satisfactory methods of appraisal are lacking to take steps to develop them The steps in developing such procedures have been listed by Tyler[8] These steps are stated and explained as follows

1 *Formulate the objectives clearly* The desired objectives of instruction should be stated in terms that can be understood by all Detailed analyses of the objectives in several fields are already available In other fields they have not been formulated The following analysis of the

[8] Tyler *op cit* pp 4 14

objectives of arithmetic instruction contains a typical list of specific functions, each of which may be the basis of a specific appraisal procedure [9]

1 The computational function, which involves the objectives of developing the ability to
   a Manipulate number processes with reasonable speed and accuracy
   b Manipulate processes in the solution of verbal problems
   c Check one's work
   d Make estimates and approximations
2 The informational function, which includes knowledge of
   a Essential historical aspects of the development of number and its applications
   b The current status and practices of such social institutions as money, wages banking taxation, insurance and the like
   c Ways in which number has facilitated measurement
   d Instruments of precision and how to use them
   e The types of information essential to intelligent consumption, production and distribution
3 The sociological function, which stresses social problems and issues such as
   a The contribution of number to the development of social cooperation
   b The values and shortcomings of various social institutions, such as measurement taxation, and banking
   c Methods of improving those institutions that are now being attempted or are possible
   d The sociology of number and its contribution to the progress of science
4 The psychological function which includes
   a Understanding and appreciation of the structure of our number system
   b Development of clear quantitative concepts and meaningful vocabulary
   c Ability and disposition to use quantitative methods as the basis of precise accurate orderly thinking
   d Ability to array simple statistical data in tabular or graphic form
   e Ability to discover and express relationships between variables—the concept of functionality
   f Ability to read and evaluate factual data presented in charts
   g Appreciation of geometric design
   h Disposition to apply quantitative techniques to the study of the issues and problems of one's everyday life
   i Ability to estimate and express the extent to which error is likely to be present in a particular set of data
   j Ability to use number as a basis of prediction

To be most helpful this general analysis should be further broken down so as to indicate the specific objectives for each stage of growth Such an analysis would be of value both to the teacher and to the one who is constructing means of approval

[9] L J Brueckner, in *Educational Diagnosis, Thirty Fourth Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co , 1933), pp 270 271

An example of the breaking down of the general objectives for a particular field of learning into those of development levels is the following statement of the aims of five stages in the development of reading ability [10]

1 *The stage at which readiness for reading is attained* This stage usually comprises the pre school years, the kindergarten and often the early part of the first grade The chief purpose of the guidance recommended is to provide the experiences and training that promote reading readiness In addition steps should be taken to overcome physical and emotional deficiencies that might interfere with progress

2 *The initial stage in learning to read* For pupils who advance normally this stage usually occurs during the first grade Among other attainments pupils acquire keen interest in learning to read and a thoughtful reading attitude They learn to engage in continuous meaningful reading read simple interesting material with keen interest and absorption in the content, and begin to read independently

3 *The stage of rapid progress in fundamental reading attitudes and habits* This stage of development occurs usually during the second and third grades It is characterized by rapid growth in reading interests and by notable progress in accuracy of comprehension depth of interpretation, independence in word recognition fluency in oral reading and increased speed of silent reading By the end of this stage of development pupils should read silently more rapidly than orally and should be able to read with reasonable ease understanding and pleasure both informational and literary materials such as are usually assigned early in the fourth grade To do this efficiently a grade score of 4 0 in silent reading should be attained

4 *The stage at which experience is extended rapidly and increased power, efficiency and excellence in reading are acquired* The fourth stage of development occurs normally during grades four five and six and is characterized by wide reading that extends and enriches the experiences of the reader and broadens his vision The chief purposes of the guidance provided are to promote greater power in comprehension and interpretation, greater efficiency in rate of reading and in reading for different purposes improvement in the quality of oral reading, the extension of the pupil s interests the elevation of reading tastes, and greater skill in the use of books and other printed sources of information A grade score of 7 0 in silent reading is desirable by the end of this stage of development

5 *The stage at which reading interests, habits, and tastes are refined* The fifth stage of development occurs as a rule during the junior high school, senior high school, and junior college periods The chief purposes of guidance in reading during these years are to promote the further development and refinement of the attitudes and habits involved in various types of reading to broaden interests and elevate tastes in reading, to develop increased efficiency in the use of books, libraries, and sources of information, and to secure a high level of efficiency in all study activities that involve reading

[10] *The Teaching of Reading, Thirty-Sixth Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co , 1937), Part I, pp 76 77

In the yearbook Gray[11] lists specific objectives and aims of instruction for each of these five levels As an illustration of the specific nature of the objectives listed, the aims for Stage III are paraphrased below

1 Participation in a rich variety of reading experiences based on the world's greatest stories for children and on informational materials that challenge interest, including topics relating to various curricular fields
2 Keen interest in reading wholesome books and selections for pleasure and to establish the habit of reading independently
3 Rapid progress in the development of habits of intelligent interpretation when reading for a variety of purposes
4 Increase in the speed with which passages are read silently within the limits of accurate comprehension (This includes rapid increases in span and rate of recognition and a corresponding decrease in number and duration of eye-fixation per line in both oral and silent reading)
5 The development of desirable standards and habits involved in good oral reading
6 Continuous development in accuracy and independence in word recognition
7 Training in the skilful use of books and increased familiarity with the privileges and opportunities of libraries

To help the teacher to visualize more clearly the significance of these aims Gray[12] also describes the characteristics pupils should possess before they can be regarded as having completed the requirements of the period successfully The characteristics listed for the end of Stage III are as follows

1 They have established the habit of reading independently
2 They interpret accurately the materials related to other curricular fields
3 They seek reading materials that relate to activities in which they are interested
4 They read more rapidly silently than orally
5 They are able to read at sight materials suited to their stage of development
6 They show increasing skill in combining contextual clues with visual and auditory elements in recognizing unfamiliar words
7 They show increased ability to make the adjustments required when reading for different purposes
8 They exhibit rapid progress in acquiring wholesome and diversified reading interests

This analysis recognizes the fact that the ability to read is the result of a long process of development and that at each of the five levels there are definite objectives which should be adjusted to the growth process The objectives are not stated by grade levels as is so frequently done in courses of study, but according to recognized stages of growth It is known that pupils do not progress from stage to stage at the same rate in any field The significance of this listing of objectives for successful levels of growth rather than by grades is clearly revealed by a statement in the same year

[11] *Ibid*, p 101
[12] *Ibid*, p 107

book that gives the following essential steps which must be taken to provide adequately for these individual differences in rates of learning [18]

1 Systematic and continuous study of the attainments and needs of pupils through the use of both informal and formal methods
2 A flexible scheme of grouping pupils within a grade or classroom that recognizes individual differences and provides for them
3 The provision of different kinds of guidance in reading in the same grade or classroom in harmony with the varying needs of the pupils taught (The adoption of this procedure should result in greatly reducing the need for so called "remedial teaching")
4 Differentiation in the materials and methods of teaching in order to provide adequately for differences in capacity and rates of learning
5 The provision of extended periods of work uninterrupted by failure, whereby pupils may make satisfactory progress from one level of advancement to the next
6 The exemption of pupils from systematic effort to improve their mastery of basic reading habits as soon as they are able to engage efficiently in all the reading activities essential in meeting the general curricular demands at their respective levels of advancement
7 The substitution of various aspects of child growth for progress in reading as the basis of promotion from grade to grade

Further discussion of these general principles of adapting instruction to individual differences in all areas of learning will be deferred until Chapter XI

2 *Clarify the objectives* The objectives must be further clarified by describing them in terms of student behavior which represent changes in the direction of the desired objectives In constructing or selecting a test, the question should be considered "Does the kind of behavior required on this test relate to an important objective of the course? Do the kinds of behavior required in these tests give evidence concerning the status of all of the important objectives of the course?"

The following statement by Tyler will make clear what is meant by clarifying objectives by describing them in terms of pupil behavior [19]

To define the behavior to be evaluated is essentially to determine all the kinds of behavior that are particularly significant for the purposes under consideration The reactions of any human organism are so many and varied that it is necessary to isolate the particular reactions that are significant for a given purpose For example, during the process of instruction in a subject such as arithmetic, pupils are reacting in many different ways some are talking some are smiling some are moving about in their seats but these are probably not significant kinds of behavior from the standpoint of arithmetic instruction In making an appraisal of value in the field of arithmetic it is necessary to define the kinds of behavior that are significant in arithmetic so that we may discover whether the pupils are reacting in desirable ways This definition would probably include behavior such as the ability to determine the total amount of an

[18] *Ibid*, pp 77 78

[19] R W Tyler in *Educational Diagnosis, Thirty-Fourth Yearbook* of the National Society for the Study of Education (Bloomington, Ill, Public School Publishing Co 1935), pp 114 115

itemized grocery bill a feeling of the importance of accurate numerical computations, the ability to determine the arithmetic processes to use in solving typical problems encountered in everyday life, and so on Similarly, one must define social adjustment in order to evaluate the effectiveness of a child's adjustment in a social group Many reactions are made by a child when in a social group some of them are random and of little or no significance from the standpoint of social adjustment others are vitally related to social adjustment It is therefore necessary to identify the significant behavior

An excellent example of the method used to clarify the meaning of the second major objective listed on page 205, the cultivation of useful work habits and study skills, is the analysis given below, prepared by Smith and Tyler [15] as a guide to the development of means of appraising outcomes related to this objective

1 1 Effective Use of Study Time
- 1 11 Habit of using large blocks of free time effectively
- 1 12 Habit of budgeting his time
- 1 13 Habit of sustained application rather than working sporadically
- 1 14 Habit of meeting promptly study obligations
- 1 15 Habit of carrying work through to completion

1 2 Conditions for Effective Study
- 1 21 Knowledge of proper working conditions
- 1 22 Habit of providing proper working conditions for himself
- 1 23 Habit of working independently, that is, working under his own direction and initiative

1 3 Effective Planning of Study
- 1 31 Habit of planning in advance
- 1 32 Habit of choosing problems for investigation which have significance for him
- 1 33 Ability to define a problem
- 1 34 Habit of analyzing a problem so as to sense its implications
- 1 35 Ability to determine data needed in an investigation

1 4 Selection of Sources
- 1 41 Awareness of kinds of information which may be obtained from various sources
- 1 42 Awareness of the limitations of the various sources of data
- 1 43 Habit of using appropriate sources of information including printed materials, lectures interviews, observations and so on

1 5 Effective Use of Various Sources of Data
- 1 51 Use of library
  - 1 511 Knowledge of important library tools
  - 1 512 Ability to use the card catalogue in a library
- 1 52 Use of books
  - 1 521 Ability to use the dictionary
  - 1 522 Habit of using the helps (such as the index) in books
  - 1 523 Ability to use maps, charts, and diagrams
- 1 53 Reading
  - 1 531 Ability to read a variety of materials for a variety of purposes using a variety of reading techniques

[15] Smith Tyler and staff *op cit* pp 31 33

1 532 Power to read with discrimination
1 533 Ability to read rapidly
1 534 Development of a more effective reading vocabulary
1 54 Ability to get helpful information from other persons
1 541 Ability to understand material presented orally
1 542 Facility in the techniques of discussion particularly discussions which clarify the issues in controversial questions
1 543 Ability to obtain information from interviews with people
1 55 Ability to obtain helpful information from field trips and other excursions
1 56 Ability to obtain information from laboratory experiments
1 57 Habit of obtaining needed information from observations

1 6 Determining Relevancy of Data
1 61 Ability to determine whether the data found are relevant to the particular problem

1 7 Recording and Organizing Data
1 71 Habit of taking useful notes for various purposes from observations lectures, interviews and reading
1 72 Ability to outline material for various purposes
1 73 Ability to make an effective organization so that the material may be readily recalled as in note taking
1 74 Ability to make an effective organization for written presentation of a topic
1 75 Ability to make an effective organization for oral presentation of a topic
1 76 Ability to write effective summaries

1 8 Presentation of the Results of Study
1 81 Ability to make an effective written presentation of the results of study
1 811 Habit of differentiating quoted material from summarized material in writing reports
1 812 Facility in handwriting or in typewriting
1 82 Ability to make an effective oral presentation of the results of study

1 9 Habit of Evaluating Each Step in an Investigation
1 91 Habit of considering the dependability of the data obtained from various sources
1 92 Habit of considering the relative importance of the various ideas obtained from various sources
1 93 Habit of refraining from generalization until data are adequate
1 94 Habit of testing his own generalizations
1 95 Habit of criticizing his own investigations

3 *Collect test situations* A test should consist of situations that are representative of the variety of situations in which the pupil ordinarily uses the skills, information, or other items to be appraised If we wish, for example, to find out how well a pupil spells in the kinds of writing he does in life situations, we must note and record his behavior in such situations—a list test will not do this To find out about a pupil's mechanical ability we must observe his behavior as he works on tasks requiring mechanical skills—a test of information will not reveal this The test situations used should give direct evidence concerning the

behavior being evaluated They must give the individual the opportunity to express the behavior being appraised Extraneous factors, such as the difficulty of the reading or the complexity of the procedure, which are likely to confuse the individual, should be controlled The test situations should be practicable from the standpoints of time, effort, and facilities required They should sample the defined behavior under a variety of conditions so that dependable conclusions may be drawn as to the typical performance of those tested It is ordinarily desirable to use a variety of techniques so that a more complete measurement is possible Numerous examples are given in Section 3 of this chapter

4 *Recording the behavior* A record of the pupil's behavior is necessary so that his behavior may be evaluated Paper and pencil examinations furnish one kind of record Reports of significant observations of pupil behavior, written compositions, art productions, trait rating devices check-lists for recording actions, photographs motion pictures, and similar devices are other means of recording behavior The form of record to be used depends on the nature of the behavior that is to be evaluated

The record should describe accurately all of the significant reactions that took place which may later be of value in interpreting the results The larger the number of significant records, the more objectively and validly the behavior can be evaluated The availability of a cumulative record of previous behavior and other information about the individual will greatly facilitate a diagnosis Records should not require much time and effort or many facilities if they are to be practical

5 *Evaluating the behavior* Instead of using a subject score, such as an educational age or a percentile rank based on the results of a single test, to evaluate a pupil's performance, behavior should be appraised by evaluating responses in terms of each of the important objectives of instruction The question should be raised, what is the individual's status with respect to a particular objective? The chief problem here is the establishment of standards for evaluating performance in different kinds of test situations and for various forms of reports In some cases appraisal is relatively simple, as in the measurement of height or weight, since objective units of measurement exist The evaluation of achievement in such fields as reading, mathematics, and science is much more difficult since the outcomes of instruction in these subjects are numerous many sided, and in some instances non-precise, furthermore objective means of describing pupil achievement relative to many of these outcomes are lacking at the present time Pupil progress is also highly variable

Bond and Bond make the following comment concerning the interpretation of norms of standard tests [10]

[10] G L Bond and Eva Bond *Teaching the Child to Read* (New York, The Macmillan Company, 1943) p 511

Norms should not be considered as ideals of attainment, but rather as the performance of average children in average sized classes with average teachers using average materials Norms are indications of mediocrity and therefore under favorable conditions should be exceeded

The problem of setting up norms of achievement presents many difficulties The present general practice is to consider the average score for children of a given chronological or mental-age group or of a given grade as the norm of achievement for all children of the group Because of the wide range of differences in the abilities and interests of the members of a group, this method of arriving at a norm is of doubtful validity In setting up a goal the primary consideration should be the nature of the objective and the extent to which there is evidence that there is optimum growth and development from time to time in the direction of the goal The purpose of the teacher should be to attempt to guide the pupil "from where he is to where he ought to be," as judged by the achievements of similar children and of his own potentialities Experimentation is needed to determine the feasibility of setting up goals of learning for different groups of children on the basis of such variables as differences in capacity to learn, differences in experiential background, differences in mental, physical, social, and emotional maturity, and differences in basic interests and purposes The problem of setting up norms for varying configurations of these and other factors presents interesting possibilities Individual norms are now used in clinical and remedial work when the individual's past performance is used as the norm by which to measure subsequent progress or when performances on several tests are compared to note relative strengths and weaknesses

Evaluation is facilitated by increasing the objectivity of the record so that in so far as is possible the evaluation is not unduly influenced by subjective judgment and personal bias In general a form of test should be used that can be easily administered and scored Validity should not be sacrificed, however, to secure objectivity In general it is recognized that if the behavior is in harmony with the accepted aims of education as a whole or of a particular area of learning it is given a high rating if it is not in harmony, it is rated low Problems of determining scale values for different kinds of behavior present many difficulties which are being attacked in various ways It is important that measurement be obtained in fine enough units so that exact appraisal may be possible

In some areas standards of appraisal are not appropriate The difficulty of evaluating outcomes in the social studies can be made clear by a consideration of "attitude" scales which have proved useful in *describing* group attitudes toward social problems and institutions These scales cannot be used to *evaluate* attitudes because there is no agreement as to what the attitudes should be They are therefore useful as instruments for the description of attitudes rather than as means of evaluation In the same way interest inventories may be used to describe the interests of

individuals or groups and their general patterns, but we cannot say that a given individual *should have* a given set of interests or possess them to a given degree

Character and personality traits are at present very unreliably appraised by most of the available tests Many efforts have been made to develop measures of such traits as honesty, good citizenship open-mindedness, leadership, and self-control As yet they have hardly advanced beyond the exploratory stage Behavior records are giving us more reliable data as a basis for evaluation The school cannot proceed with any assurance in building a program for the development of these traits until they have been adequately defined and described and until reliable means for appraising them are available

SECTION 3

TECHNIQUES FOR THE EVALUATION OF THE EDUCATIONAL PRODUCT THEIR SELECTION AND IMPROVEMENT

Objective measurement and subjective evaluation both necessary At the present time there are two expressions that are used to differentiate between objective and subjective methods of approach in gathering data about the pupil as a basis of appraising his characteristics namely the words *measurement* and *evaluation* 'Measurement' is applied to the use of techniques which involve the application of precise objective methods that yield quantitative data concerning aspects of the individual that lend themselves to quantitative analysis his achievements in school subjects, his intelligence and his physical characteristics such as his height, weight, and lung capacity These facts can be expressed in standard units, and direct comparisons with norms are possible "Evaluation," on the other hand refers to the gathering of facts by more subjective procedures behavior records, inventories of interests, check lists that yield descriptive qualitative data about the individual's activities These data do not lend themselves to interpretation by standard precision units but they are very valuable as a basis for making a judgment about the quality of his reactions, his methods of work, and other more general more subtle matters Although the approach to the interpretation of the information gathered by these less precise subjective means is ordinarily not on a quantitative basis, considerable progress has been made in recent years in the development of objective standards by which these kinds of qualitative facts can be appraised Ultimately the distinction made above between the techniques of measurement and evaluation will likely be unnecessary Both terms actually imply that certain values have been accepted and that behavior is judged in terms of these values

In selecting methods of gathering facts on the basis of which to appraise the educational product certain points should be given careful consideration The outcomes to be evaluated should be comprehensive enough to

include the more important objectives of the area involved The method of appraisal should be practical and not too difficult to apply Evidence should be secured that the procedure selected is valid, that is, that it measures what it purports to measure The fact that the technique is reliable and yields consistent accurate information should be established It is essential that the data derived in a given situation by two or more persons independently should be in close agreement and also be comparable with data from similar situations to assist in the interpretation of the results In brief, whatever the method of appraisal that is used—be it essay examination, standardized test, direct observation, interview, anecdotal record, or any other of the wide variety of techniques that are available—every effort should be made to select procedures that will assure the availability of dependable accurate information

Techniques for evaluation of the educational product An analysis of the literature on evaluation shows that a great many different kinds of procedures are being used to appraise various aspects of the educational product Some of these methods have been in use for many years whereas others are of recent origin The list below includes the more important and useful techniques of appraisal that are being used at the present time

I The Traditional Essay Type Examination

II The Improved Essay-Type Examination with Well Selected and Formulated Questions Which Adequately Sample Learning Outcomes and Are Scored on a Fairly Objective Basis

III Standardized Tests and Measuring Devices
- A Mental and intelligence tests
- B Achievement tests
- C Aptitude and trade tests
- D Physical and medical examinations
- E Personality and character tests

IV Home Made or School Made Objective Tests
- A Simple recall or free response
- B Completion
- C Alternate response
- D Multiple choice
- E Matching

V Problem-Situation Tests
- A Direct experience
  - 1 Experiment to be performed
  - 2 Life situation to be met (actual)
- B Indirect approach
  - 1 Improved essay examination
  - 2 Objective test requiring judgment
  - 3 Life situation to be met (described)

VI Behavior Records Concerning in and out-of-School Activities
- A Controlled situations
  - 1 Use of check list, rating scales, score cards, codes for evaluating personality traits, behavior, attitudes, opinions interests, etc
  - 2 Guess-who tests

3 Self rating devices
4 Time studies of activities, attention, etc
5 Camera for still or motion pictures
6 Stenographic or dictaphone records

B Uncontrolled situations
1 Diary or log with or without guiding outline
2 Anecdotal record, police records library records etc
3 Camera for still or motion pictures

VII Inventories and Questionnaires of Interests, Activities, Associates, and so forth

VIII Interviews and Personal Reports

IX Analysis and Evaluation of Creative Products such as Poems, Music, Constructions, and so forth

X Analysis of a Play Debate, or Any Other Kind of Student Performance

XI Case Studies Involving Use of Specialized Clinical Devices and Procedures (These specialized techniques will be discussed in detail in Chapter XVII)

In the discussion that follows in Section 4 there appear numerous selected illustrations of these techniques of appraisal In this section we shall discuss the general principles underlying their selection, use, and improvement

The use and improvement of the essay examination Essay type examinations have for many years been subject to severe criticism The two major limitations discussed have been the subjectivity of scoring resulting in the unreliability of marks, and the limited sampling of the important areas of subject-matter being tested The recognized values of essay examinations for such purposes as measuring higher mental abilities, such as the ability to organize materials or to interpret and criticize discussions have led to widespread efforts to devise means of overcoming their limitations Most of the resulting recommendations have to do with the selection of test content, the framing of test items and the method of scoring the test papers The following statement lists three steps that may be taken to improve teacher made examinations of the essay type [17]

1 The exact purpose of the examination must be understood by both the teacher and the pupil The emphasis of the essay examination should be definitely on thought reasoning and other types of mental activity as applied to the materials of the course The main concern is with topics which involve interest centers or relationships and problematical issues Questions involving judgments, synthesis, and generalizations are admittedly difficult to evaluate but they show aspects of pupil mastery and mind-quality probably not revealed otherwise

2 The content of the examination should be governed by its purpose In general, a test should parallel the objectives and pupil outcomes of the course This means that there should be a proper balance of test content not only with respect to the subject matter but also with respect to the types of abilities to use and apply informations which are desired pupil

[17] H A Greene A N Jorgensen, and J R Gerberich *Measurement and Evaluation in the Elementary School* (New York Longmans Green & Co 1942) pp 146 148

outcomes Essay type questions have been generally open to the criticism that they are hastily and carelessly prepared The advocates of the improved essay examination are quite positive in their insistence that the preparation and selection of suitable essay-type questions should consume at least as much time as is required to score the answers If this is done, the value and the accuracy of the scores obtained are almost certain to be increased

3 Definite rules should be formulated which will as far as possible control the irrelevant factors in scoring the papers The careful use of scoring rules will bring about a definite decrease in the inaccuracy of the pupil scores

The application of the following list of rules for use in marking essay-type examinations largely eliminates the personal judgment or bias of the scorer [18]

1 Examinations should be scored by the one who makes out the questions He should know exactly what responses are desired and should write out his answers to the questions in advance

2 Each pupil taking the test should write his name on the back of the test paper and the scorer should disregard the name until the test is scored This eliminates the subjective factor of being influenced or biased in judgment because of former contacts with the pupil, in so far as the teacher does not become aware through handwriting manner of expression etc of the writer's identity

3 The scorer should not mark off for misspelled words or poor sentence structure, paragraphing handwriting etc Similarly he should not increase the score for excellence in these things Such factors however may be indicated or checked on the examination The reason for this lies in the fact that the function of the examination is to measure the pupil's abilities in a course and not his ability to write or to spell or use correct written English Suitable tests can be obtained for these purposes

4 Each separate item should be scored in all of the papers consecutively This is preferable to the correction of each entire test as a unit, for it permits the scorer to concentrate on the answer to a single test exercise and better to judge the merits of the several pupil responses to the same question

5 Each question should be rated on a scale of ten, twenty, or a given number of scoring points The total score should be obtained for each pupil by adding the scores on the different questions only after all of the scoring had been done

The selection of standard tests. Numerous rating devices which list in detail the items that should be considered in the selection of tests are available In some of these scales arbitrary values are assigned to each point These values are subjective, and their application to particular tests is also subjective It is not to be expected that two or more persons will agree closely on the ratings given a particular test In spite of these limitations however, these score cards are of real value for the inexperienced supervisor or teacher, since they bring to attention the definite points about quality features of a test One of the most complete and

[18] *Ibid*, pp 146 147

analytical of these score cards is the Cole-von Borgersrode Scale for Rating Standardized Tests[19] which is given below A careful study of the points listed and practice on the application of this scale by the supervisor in the evaluation of several tests will be found to be of real value in the selection of tests

COLE VON BORGERSRODE SCALE FOR RATING STANDARDIZED TESTS

I Preliminary Information
- 1 Exact name of test
- 2 Name and position of author
- 3 Name of publisher and nearest address
- 4 Cost
- 5 Date of copyright
- 6 Purpose of test

II Validity (25)
- A Curricular (15)
  - 1 Exact field or range of education functions which test measures
  - 2 Ages and grades for which intended
  - 3 Criteria with which material was correlated
  - 4 Do questions parallel good teaching procedures?
  - 5 How wide is sampling of important topics?
  - 6 What is the social utility of questions?
  - 7 Is test claimed to be diagnostic? (If so prove and see VI 5 c, below)
- B Statistical (10)
  - 1 Correlated against what outside criteria
  - 2 Size of coefficient of correlation
  - 3 Size and representativeness of sampling
  - 4 Proof of validity of items (such as statements as to experimental tryout of items individually to determine that no large percentage is failed or passed by all pupils and that the items show a consistent increase of percentages of successes with successive age or grade levels)

III Reliability (25)
- A Most important items
  - 1 Correlated with what?
  - 2 Size and representativeness of sampling
  - 3 Reliability coefficient
  - 4 The means of the distributions
  - 5 The standard deviations of the distributions
  - 6 If some other measure than the above three is given to prove reliability, what is it?
  - 7 Intercorrelations
- B Less important but desirable
  - 1 Order of giving various form of test
  - 2 Is test reliable enough statistically for individual measurement, or can it be used only for groups?
  - 3 Evenness of scaling (see II, B, 4)
  - 4 Are pupils accustomed to this type of test?

[19] Robert D Cole and F von Borgersrode, A Scale for Rating Standardized Tests *School of Education Record* of the University of North Dakota, Vol 14, No 1 (Grand Forks University of North Dakota 1918), pp 11 15

IV Ease of Administration (15)
- 1 Manual of directions (3)
  - *a* How complete and simple is the manual?
  - *b* Does manual control test conditions well?
  - *c* Typographic make up
- 2 Simplicity of administration (8)
  - *a* Amount of explanation needed for pupils by examiner
  - *b* Are directions to pupils clear detailed comprehensive?
  - *c* Is arrangement of test convenient for pupils?
  - *d* Are samples and "fore exercises" given when needed?
- 3 Alternate forms (3)
  - *a* Number
  - *b* Evidence of reliability
  - *c* Evidence of equivalence
- 4 Time needed for giving

V Ease of Scoring (10)
- 1 Degree of objectivity—purely objective or some judgment on part of examiner?
- 2 Are adequate directions given—clear, equal to all emergencies?
- 3 Is scoring key adjusted to size of test?
- 4 Time needed to score one test
- 5 Simplicity of procedure
  - *a* Number of processes needed to get final score?

VI Ease of Interpretation (20)
- 1 Norms (6)
  - *a* Kind—age, grade percentile etc
  - *b* Derivation—size and representativeness of sampling
  - *c* Tentative, arbitrary or experimental?
  - *d* For separate parts?
  - *e* How expressed?
- 2 Is class record provided?
- 3 Are there provisions for graphing results?
- 4 Is interpretation of raw scores easy or hard?
- 5 Application of results (10)
  - *a* Are directions or suggestions given for application of result to benefit teaching or administration?
  - *b* Are tests survey or diagnostic?
  - *c* If diagnostic—
    - (1) Proof of diagnostic value
    - (2) What principle or principles underlie construction?
    - (3) How many different skills, abilities or aspects of the subject are analyzed or measured?
    - (4) Does the analysis of total subjects into unit abilities follow teaching practices or needs?
    - (5) Is the diagnosis individual or class proof?
    - (6) Does the test demand tabulations of individual pupils' errors to secure diagnosis?
    - (7) Is a remedial program provided or suggested?

VII Miscellaneous (5)
- 1 Typography and make up
  - *a* Arrangement of printed matter
  - *b* Legibility of type
  - *c* Quality of paper

d Are test blanks free from distraction, norms, directions to examiner, etc?

2 Is the time required for giving as small as is consistent with reliable measurement?

3 Is the cost in keeping with the amount scope and reliability of the results yielded?

4 Is good test service provided by the publisher?

5 Kind of new type questions used

The reader will find it an enlightening exercise to apply these standards to means of appraisal used in his school Data needed in the case of a particular test are often given in the manual accompanying it The general criterion should be, To what extent is this particular instrument a suitable one for the purposes I have in mind?

An illustration of a check list for applying some of the above criteria to the evaluation of a test in a particular field is the following check list prepared by Wrightstone.[20] The points given under each of the four major headings will assist the reader to see how each criterion can be dealt with effectively

CHECK LIST FOR EVALUATING READING TESTS AND MEASURES

1 Validity
- 1 1 Does the instrument measure functions and factors in the reading process with which your classes are primarily concerned?
- 1 2 Does the content of the instrument sample the range and types of materials or reading situations in which your classes are interested?
- 1 3 Which aspects of an objective or objectives in reading does this instrument measure?
- 1 4 Will other aspects of an objective or objectives in reading need to be measured by other formal or informal appraisal techniques?
- 1 5 Will this test provide sufficient diagnostic information for your purposes?

2 Reliability
- 2 1 Are the reliability coefficients for parts and total test reported for a grade group?
- 2 2 Are the reliabilities adequate for your purposes?
- 2 3 Is the population upon which the norms are based described so that you can interpret the scores?

3 Objectivity
- 3 1 Are the directions to the pupil clear, concise, and comprehensive?
- 3 2 Are the items so poorly worked out that the answer counted as right may be questioned?
- 3 3 Are the answers definite and inflexible?
- 3 4 Do the answers call for judgments on the part of the scorer?

4 Practicability
- 4 1 Does the administration of the test require a reasonable expenditure of the student's time and energy?

[20] W S Gray editor Reading in General Education Committee on Reading in General Education report (Washington, D C American Council on Education, 1940) pp 398 399

4 2 Does the administration and scoring of the instrument require a reasonable expenditure of the examiner's time and energy?
4 3 Does the typography of the test or questionnaire permit ease of reading?
4 4 Can the indexes or scores be appropriately interpreted?

The improvement of new-type objective examinations The use of new-type objective examinations has spread rapidly in our schools Because many teachers lack training in the techniques of preparing various forms of these tests, many of the tests they prepare have serious limitations In recent years local workshops and workshops at teacher-training institutions have undertaken the development of improved types of tests related closely to the curricula of specific school systems because standard tests did not fit the program of work offered The work done in these workshops has led to the general dissemination among teachers of an understanding of the principles underlying the construction of improved objective types of informal examinations

Several books contain excellent descriptions of procedures to follow in the construction of new type objective examinations

RUCH G M *The Objective or New Type Examination* (Chicago, Scott Foresman and Company 1929)
TIEGS E W *Tests and Measurements for Teachers* (Boston Houghton Mifflin Company 1931)
SMITH F R and TYLER, R W, *Appraising and Recording Pupil Progress* (New York Harper & Brothers 1942)
REMMERS H and GAGE N L *Educational Measurement and Evaluation* (New York Harper & Brothers 1949)
GREENE H JORGINSEN A and GERBERICH J, *Measurement and Evaluation in the Elementary School* (New York, Longmans, Green & Co 1942)
———, *Measurement and Evaluation in the Secondary School* (New York Longmans Green & Co 1943)

Suggestions for constructing objective tests Persons constructing tests of the various types should be guided by the rules listed below, according to Cook [21]

1 Alternate Response Items
a The pupil response required should be simple
b There should be a random distribution of true and false items
c The crucial element in the question should be made as obvious as possible Hovland and Eberhart attempted to avoid ambiguity in true-false items by underlining the crucial part of the statement They report that the reliability of their tests was increased by the procedure
d Avoid catch questions which tend to test a pupil's mental alertness rather than a mastery of the material involved Lindquist provides excellent samples of the types of statements to avoid
e Avoid giving the true or false statements consistently certain determining characteristics Brinkmeier and Ruch investigated true false

[21] Statement of rules prepared by W W Cook for W S Monroe, editor, *Encyclopedia of Educational Research* (New York, The Macmillan Company 1941) pp 1291-1293 By permission of The Macmillan Company publishers

items to locate specific determiners They found that the longer a sentence the more likely it was to be true that four out of five statements containing 'all' were false, three out of four statements containing "always" or 'never' were false four out of five statements containing "no' 'none,' or 'nothing' were false and nine out of ten statements containing "only' or 'alone' were false

f Avoid the use of textbook language for two reasons many of the statements when removed from their context are ambiguous the use of statements from the text encourages rote learning and the memorizing attitude during study

g Avoid the use of a double negative Even simple negatives tend to be confusing to young children

h Avoid the use of general terms such as large small great important well known many few and more when fine distinctions are involved or when the meaning is not obvious Statements should be specific and comparisons direct

i Chance factors due to guessing operate at maximum in alternate-response tests hence answers to the following two questions become of utmost importance Should pupils be instructed not to guess? Should the scores be corrected for guessing? Considerable research has been reported on the questions The evidence points quite conclusively to the following answers pupils should be instructed not to guess but to leave those items unanswered upon which they have no information Correction for guessing in most instances increases the validity of the test Available evidence indicates that the effect on reliability depends upon whether the test is administered at its optimum rate If the time limit is less than optimum the reliability of the test is lowered by the correction If the time limit is optimum correction for guessing lowers it only slightly or not at all When scores are corrected for guessing the time limit of the test influences the reliability much less than when there is no correction

2 Multiple Choice Items

a Only one type of multiple choice item should be used in the same section of a test Pupils who are accustomed to selecting the one correct response are confused when suddenly required to select the one incorrect response

b Use at least four or five possible responses in order to minimize chance successes

c Do not mix items with varying number of possible responses in the same test if the scores are to be corrected for guessing In informal classroom testing mixing such items is permissible since correction for guessing is not necessary when three or more choices are presented

d Arrange the correct response to occur in the same position not more than two or three times in succession

e Make the first second third, fourth possible response the correct one in about equal numbers

f Formulate all the possible responses in such a way that they will appear plausible to all students below the ability level at which the item is intended to discriminate In other words, one should guard against any tendency to make the decoys so plausible even to superior students that they will result in a negatively discriminating item

g Use the direct question form when possible because it is less likely to be ambiguous and is the most natural form for the pupil

h When the incomplete sentence form is used make it equivalent to a direct question and place the alternate responses at the end of the statement

i Avoid wording statements in such a way that clues are provided through word matching, grammatical consistence, or textbook phraseology

3 Matching Items

a The optimum number of pairs to be matched is probably between five and seven When the number is larger the pupil tends to waste time hunting for the correct response

b It is better to include two or three extra responses or to permit a response to be used more than once to prevent guessing and selection by elimination

c Always explain in the directions the basis upon which the matching is to be made and the fact that a response may be used more than once

d The material included in each matching group should be homogeneous To include personages, events, locations and dates in one exercise reduces the discrimination required almost to zero All items in the response column should be plausible responses to every item in the stimulus column

e The stimulus column should contain the long statements phrases, or definitions the response column should contain single words or short phrases unless the content of the item clearly indicates otherwise

f Items in the response column should be arranged systematically to facilitate finding them They may be arranged alphabetically, chronologically or in numerical sequence

4 Free Response Items

a Formulate the item in such a way that only one response is correct, this response should be a word number formula or at most a short phrase

b Avoid items which supply so much of the crucial information that they may be answered correctly through the exercise of general intelligence

c Avoid words which afford clues as to the correct responses such as 'a' or 'an" immediately preceding the blank

d If the blank spaces to be filled in are arranged in a vertical column scoring is facilitated

e Do not use exact statements copied from the textbook because this encourages a mental set during study which results in memorizing rather than understanding

f Leave adequate space for the pupil to write his response but avoid using blank lines of different lengths to indicate the length of the proper response

g Use the direct question form in preference to the incomplete-statement form

5 Completion Items

a Make each blank call for the completion of a single idea

b Avoid too many blanks

c Make all blanks the same length to avoid giving clues

d Avoid using sentences or paragraphs from the textbook

e Make sure that the statement is sufficiently complete that the pupil will interpret the item correctly

f Avoid clues afforded by the requirement of grammatical consistency
g Avoid the omission of long phrases

The use of problem-situation tests The problem situation test is an excellent means of evaluating such outcomes of learning as methods of response when faced with a difficulty, ability to apply principles in new situations, and critical thinking A direct test involves the study of the learner's performance in some concrete situation in which he is faced with a problem to be solved He may be asked, for example, to demonstrate his understanding of the meaning of the concept *area* by finding the area of the surface of a table or some other plane In this case the items that may be considered in evaluating his performance are the following

1 Method of attack on the problem
2 Skill in the use of measuring devices needed
3 Kinds of errors made in securing needed information
4 Correctness of computations necessary

In another form, the problem situation test includes paragraphs which state separate problems The objective test form asks "What should be done?" The pupil is required to select from a number of solutions the one he regards as correct for each of the problems The pupil may also be asked to write a statement of his solution as an essay examination The test can be effectively extended by asking the pupil to indicate which of possible reasons listed support his conclusion The results may be analyzed to show

1 Ability of the pupil to make correct decisions and to select correct reasons
2 The nature of the conclusions drawn or reasons selected as a basis of discovering faulty concepts and misunderstandings
3 The types of incorrect reasons selected such as those irrelevant to the problem or technically false, or those based on authority practice or false knowledge
4 The number of reasons inconsistent with the conclusions drawn

The use of behavior records as a basis of evaluation Many aspects of learning and behavior do not lend themselves effectively to objective measurement by means of paper-and-pencil techniques They can be more satisfactorily analyzed by observation of the pupil's behavior in controlled situations or in life activities both in and out of school In order to discover whether or not a student knows how to locate information in the library for example, a useful plan is to give him an assignment and then to note the procedures he uses in carrying out the task Similar procedures of a problem-solving kind can be used in many other ways in the laboratory, in the shop, on the athletic field and in carrying on the activities in some class or individual project

Less formal procedures can also be used in studying through observation of the characteristics of the learner The correctness of his oral speech,

its precision, and quality, can best be observed by noting his responses in normal group activities, during recitations, and in conferences His abilities in art, music, science, dramatics, and athletics are probably best appraised by observing his behavior in situations in which these abilities find normal expression rather than through paper-and-pencil tests The performance and product can both be studied There is always present, of course, the problem of standards for evaluating the information secured To assist in this appraisal there are available check-lists of various kinds, rating scales, sets of criteria of fairly objective types, and other methods of increasing the dependability of the ratings given In the absence of a standardized procedure, the teacher should not hesitate to make use of some original plan that will assist in the evaluation of performance or product

The use of the camera, dictaphone, and similar mechanical devices makes it possible to preserve a permanent record of behavior or product which can be considered again and again in making an appraisal Such records also make it easier to determine progress made from time to time by direct comparisons of performance or product Stenographic records of conversations and discussions also are valuable for some kinds of appraisal Other more specific clinical procedures, such as psychiatric interviews also are based to a large extent on the results of observations of behavior These devices will be discussed fully in the chapter on methods of studying the product to determine reasons for inefficiencies and unfavorable growth

The anecdotal behavior record and the diary Paper-and-pencil tests rating devices, and performance tests are inadequate means of evaluating such items as social and emotional adjustment, social interests, and level of social awareness A more direct observational approach known as the "anecdotal behavior record" has been developed as a means of gathering facts about pupil behavior that can form the basis of evaluative judgments of his characteristics Anecdotes are reports of what a pupil does or says in social situations both in and out of school that may be of value in making an appraisal of his behavior The incidents that are reported may be instances of desirable behavior or of undesirable conduct The general trend of the reports for any individual indicates the ways in which the pupil is adjusting himself and of the ways in which he is contributing to the welfare of his group Changes in the amount and nature of the reports provide a roughly quantitative measure of the direction and extent of his development Information of this kind gathered by teachers and other competent observers is of great value in guidance programs

The following is an illustration of the report of an incident, its interpretation, and recommendations as given by Traxler [22]

[22] A E Traxler, *The Nature and Use of Anecdotal Records* (New York Educational Records Bureau, 1939) p 42

Incident In a meeting of her club today Alice fired questions at the new president at every opportunity She interrupted many times during the period On several occasions the other students called for her to sit down

Interpretation Alice seemed to be jealous of the new president and desirous of creating difficulty The other students appeared to resent her action The girl seemed to enjoy making trouble for others

Recommendation It would be advisable for the counselor to lead the girl tactfully into a discussion of her relations with the other students in an effort to bring about a better adjustment

Traxler has presented the general procedure for setting up a system of anecdotal records in the following six steps [23]

1 Enlisting the cooperation of the group
2 Deciding how much should be expected of observers, the kinds of information to be gathered and the consideration of possible methods to be used
3 Preparing forms for reporting anecdotes
4 Obtaining original records of behavior
5 Filing reports in some central location
6 Summarizing and interpreting the records being compiled

To facilitate the preparation of reports of anecdotes Jarvie and Ellingson [24] recommend such procedures as (1) providing centrally located dictaphones for use by teachers, (2) assigning secretaries to teachers at specified times to take down anecdotes and to transcribe them for the central file, (3) organizing weekly discussion groups to present instances of behavior for consideration by the staff Periodic summaries should be made of all anecdotes reported for individuals and for the school as a whole Those for individuals should be specific and diagnostic while those for the school can be in general terms so that any important trends in their nature can be discovered The information thus gathered may well lead to the development of rating scales consisting of lists of important items defined in descriptive categories which describe various levels of quality and desirability in such traits as responsibility-dependability, creativeness and imagination, open mindedness, and seriousness of purpose

The diary is a form of record for keeping a running account of activities by an individual or a class over a period of time The data gathered by this method supply concrete evidence about behavior which is of value in making judgments similar to those made on the basis of anecdotes and incidents Ordinarily a diary or log is kept by some individual for personal reasons a record of this kind, however, kept by some person as a description of the activities of others makes it possible to get a vivid picture of their behavior and reactions The analysis of the data gathered for specific reasons and purposes set up in advance provides valuable information needed for appraisal

[23] *Ibid*, p 42

[24] L L Jarvie and Mark Ellingson *A Handbook on the Anecdotal Behavior Journal* (Chicago, University of Chicago Press, 1940)

The interview or questionnaire as used in evaluation There are many facts about the characteristics of the individual, his interests, his activities, and his behavior that can be effectively gathered by means of questions directed at the individual which require him to supply the desired information In many cases others can also supply needed information parents, associates, and teachers When this approach is used, every precaution must be taken to secure dependable reliable data Such items as the following have been successfully appraised by means of questionnaires, inventories, interviews, and personal reports

1 Books magazines newspapers etc read
2 Radio programs listened to
3 Movies, concerts shows, meetings attended
4 Kinds of writing and speech activities in life outside the school
5 Participation in community and school projects and enterprises
6 Hobbies
7 Work experiences money earned
8 Things produced as in gardens shops, etc
9 Home activities
10 Problems and difficulties encountered
11 Observed behavior reported by associates and others
12 Group data supplied by civic social and welfare agencies
13 Expressions of attitudes interests, and opinions

Certain principles should be borne in mind in preparing a questionnaire or inventory form The questions should be clearly stated so that there will be no doubt about their meaning It is often desirable to include check questions, so that there will be a check on matters about which it is desired to secure accurate information No hint should be given as to answers that would be regarded as acceptable, nor should there be anything that will color the responses in any way Short direct specific questions are preferred Interest, ease of answering and willingness to answer are important factors to be considered in constructing the questionnaire and selecting persons to whom it is to be directed Ordinarily it is desirable to try out the form on some competent individuals and then to revise it in the light of suggestions made The more objective the data called for and the more the information called for is within the responding individual's first-hand experience, the more dependable are the results of the investigation

The evaluation of products and procedures The achievement of numerous educational objectives is expressed by means of a *product*, a direct indication of the ability of the pupil to apply information, skill, and understanding Such products may well include specimens of handwriting, composition, and objects produced in classes in industrial arts and home economics They may range in variety from musical compositions to tangible objects made of wood and metals In connection with the evaluation of the product it is also often desirable to secure a

rating of the procedures used in effecting it, their quality, efficiency, and evidence of skill

Products may be evaluated either in terms of their "general merit," as, for example, specimens of handwriting, or in terms of their component features or desirable characteristics, a method in which various aspects of the product are evaluated separately Devices of the first type are either *rating scales* or *quality scales* The Thorndike Handwriting Scale, a device for rating the general merit of penmanship for example, contains fifteen samples, each of which defines a quantitative value for rating general merit along a range from best to poorest Similar scales are available for composition, art work, free-hand lettering, and other kinds of products Devices of the second type contain an analysis of the product into specific features, for each of which there are found in the best instruments descriptions of various levels of quality that aid in scoring each feature In some instances the rating device is the product of extensive statistical investigation and analysis whereas in others the evaluative criteria are simply derived and descriptively stated The following scale for scoring a roast is illustrative of the procedure used

MINNESOTA SCORE CARD FOR RATING A MEAT ROAST
(Devised by C Brown and others)

	1	2	3	*Score*
Appearance	Shriveled		Plump and slightly moist	_____
Color	Pale and burned		Well browned	_____
Moisture content	Dry		Juicy	_____
Tenderness	Tough		Easily cut or pierced with fork	_____
Taste and Flavor	Flat or too highly seasoned		Well seasoned	_____
	Raw, tasteless or burned		Flavor developed	_____

The evaluation of performance or procedure is a difficult undertaking because it becomes necessary to evaluate a continuing changing process consisting of many different specific actions and aspects One important development in this direction is the check list developed by Tyler which is used to describe student reactions in finding an object under a microscope [6] It consists of a list of specific activities which aid the observer to

[6] Tyler A Test of Skill in Using a Microscope, *Constructing Achievement Tests*, *op cit*, p 39

compile an objective record of the performance of an individual student on an assigned task The analysis of the data reveals strengths and weaknesses in the steps taken by the student and affords an excellent basis of a subsequent discussion of his methods of work Check-lists of a similar kind can be used to evaluate other kinds of performances, such as kicking a football giving a lecture or talk, taking part in a play, or performing an experiment

The evaluation of creative products is by all odds the most difficult of evaluation tasks Burton lists the following reasons for the difficulty [26]

1 Standards of taste cannot be routinized
2 Confusion arises easily between judgments of content and judgments of form
3 Undue analysis easily kills the creative spirit, especially with young pupils and with older ones who are beginners
4 Individual differences may be as important here as standards
5 Careless negative judgments have a greater detrimental effect here than in most fields

In spite of these and other difficulties the careful evaluation of creative work must be undertaken A helpful approach is suggested by the analysis of achievements in writing, fine or applied arts, music, research contributions to group discussion and decisions in terms of the following characteristics and levels of "creativeness and imagination' [27]

General Approaches whatever he does with active imagination and originality, so that he contributes something that is his own
Specific Makes a distinctly original and significant contribution in one or more fields
Promising Shows a degree of creativeness that indicates the likelihood of valuable original contributions in some field although the contributions already made have not proved to be particularly significant
Limited Shows the desire to contribute his own thinking and expression to situations but his degree of imagination and originality is not in general high enough to have much influence on his accomplishments
Imitative Makes little or no creative contributions, yet shows sufficient imagination to see the implications in the creation of others and to make use of their ideas or accomplishments
Unimaginative Has given practically no evidence of originality or creativeness of imagination or action

Ratings in terms of these levels are admittedly subjective but they are likely to assist in the evaluation of creative products Specialized instruments are available for several areas Composition scales for example, often include such criteria as originality or content, freshness of approach, originality of treatment, and facility of expression Scales for evaluating products of work in sewing, art, cooking, and mechanical drawing have

[26] W H Burton *Guidance of Learning Activities* (New York, D Appleton Century Company Inc 1944) pp 442 443
[27] Smith Tyler and staff *op cit*, p 478

been developed in a number of places, but they have not proven very satisfactory as yet

SECTION 4

ILLUSTRATIONS AND THE USES OF INSTRUMENTS OF APPRAISAL

Pupil characteristics and behavior as a basis of appraisal The quality and efficiency of the educational program can be appraised best by analyzing and evaluating the characteristics and behavior of its product at all stages of development The aspects that should be considered fall into three classifications

1 Educational achievements appreciations and insights	These include the knowledge the pupil has acquired his skill in the use of the tools of learning and action his social insight, and in general his ability to use in his daily activities the contributions of the various areas of the curriculum
2 Character and personality traits and ways of living	These include such items as interests attitudes appreciations sociability emotional stability, self control honesty and qualities of leadership By ways of living are meant the types of behavior essential for effective living in an evolving democratic industrial society the ability to see problems faced by self or society the disposition and ability to attack and solve these problems and to cooperate effectively with others in their solution
3 Physical characteristics and health	These include such items as health, physical defects and athletic skill

The following pages will present selected examples of procedures and devices suitable for evaluation in each of these three areas and will also give references to further illustrations

Studying the educational achievements of pupils Any technique that will yield information of a reliable valid kind may be used to study the achievements of pupils In general the procedures that may be used involve some sort of test of ability or observation of behavior

Educational tests Educational tests available for appraising pupil achievement may be classified in various ways One way is according to the aspect of ability they measure *Rate* tests measure the amount of work of a uniform kind of difficulty a pupil does in a given time *Scaled* tests consist of exercises of increasing difficulty They measure the height or altitude to which a given general ability, such as addition, or knowledge of geographic information, has been developed *Quality* scales in handwriting, composition, sewing and other subjects make it possible

to measure the merit of a specimen by comparing it with specimens in the quality scale *Area* tests afford a means of surveying a wide variety of skills and specific abilities included in a field of learning Supervisors and teachers should select tests that will measure the aspect of ability they wish to measure

Educational tests may also be classified according to their use as *survey, diagnostic,* or *prognostic Survey* tests aim to give a general measure of the status of achievement They usually consist of scaled tests of some aspect of the work in each of the basic subjects of the curriculum Tests of this kind are widely used throughout the country Testing programs should not be limited to tests of this kind because they evaluate only a narrow range of outcomes *Diagnostic* or *analytical* tests usually consist of a series of tests in several aspects of a single subject such as reading, arithmetic language, or science On the basis of the results it is possible to determine the relative status of a class or of an individual with respect to the outcomes measured by each of the tests A pupil may read rapidly, for example, but with poor comprehension, or he may be able to read with understanding, but not be able to locate material in reference books The detailed discussion of diagnostic tests will be deferred until Chapter VII *Prognostic* tests aim to predict probable success in a given field of learning such as algebra Latin, or clerical work Tests of readiness in arithmetic and reading are a sort of prognostic test In all cases the use to be made of the test results should be a guide in the selection of means of appraisal

No attempt will be made here to supply a complete list of the different kinds of tests to be used in appraising the products of learning Several thousand achievement tests exist and others are constantly being devised Excellent discussions of available tests may be found in the list of references at the end of this chapter The following list of tests useful for general survey purposes in elementary schools is given for illustrative purposes only Each consists of a battery of achievement tests in the major subjects of the curriculum

Unit Scales of Attainment Grades 1 to 8 (Minneapolis, Minn., Educational Test Bureau Inc 1942 1944)

New Stanford Achievement Tests Primary Examination Grades 2 3 Advanced Examination Grades 4-9 (Yonkers on Hudson N Y, World Book Company 1929)

Modern School Achievement Test (New York Bureau of Publications Teachers College Columbia University 1931)

Iowa Every Pupil Tests of Basic Skills (Iowa City Iowa, Bureau of Educational Research and Service University of Iowa, 1936, also by Houghton Mifflin Company Boston)

Metropolitan Achievement Tests, Grades 3 to 8 (Yonkers-on Hudson, N Y, World Book Company 1932, 1933 1936)

McCall and Herring *A Comprehensive Test Program* (Chicago, Laidlaw Brothers) Includes a comprehensive achievement test, an intelligence test, an educational background questionnaire and a school practices questionnaire

Progressive Achievement Tests Grades 3 to 8 (Los Angeles Calif, Southern California, School Book Depository 1934 1948)

Other types of tests of a much more analytical nature dealing with particular subjects may be selected The Iowa Elementary Language Tests, for example, for grades four to nine contain tests in (1) word meaning, synonyms, and opposites, (2) language usage, (3) grammatical-form recognition, (4) sentence sense, (5) sentence structure, (6) capitalization and punctuation, (7) paragraph organization Similar tests are available for other subjects of the curriculum Results of such analytical tests afford a much more detailed analysis of the level of achievement than is supplied by general survey tests In general the use of such analytical tests should follow a general survey program rather than precede it As a matter of fact many textbooks now contain well constructed survey and diagnostic tests suitable for use by the classroom teacher Their intelligent use by the teacher is an essential supplement to general survey testing Diagnostic testing is an invaluable element of the teaching program

A wide variety of tests in high school subjects is published by The Cooperative Test Service and by the Psychological Corporation, both of New York Other high school and college tests are published by the same companies that publish tests for elementary schools

An important recent development in the field of evaluation is the series of tests known as the Iowa Tests of Educational Development [28] The series consists of a number of broadly comprehensive examinations, one for each of the major areas of the curriculum The tests provide measures of growth in that aspect of the pupil's development with which all subjects in a general area are concerned They are intended for use in high schools The series includes the following tests

1 Test of Understanding Basic Social Concepts
2 Test of Background in the Natural Sciences
3 Test of Correctness in Writing
4 Test of Ability to Do Quantitative Thinking
5 Test of Ability to Interpret Reading Materials in the Social Studies
6 Test of Ability to Interpret Reading Materials in the Natural Sciences
7 Test of Ability to Interpret Literary Materials
8 Test of General Vocabulary
9 Test of Use of Sources of Information

Limitations and values of tests 1 *Variability of pupil performance on tests* Recent research has demonstrated the fact that the responses of the pupil are affected by the nature of the test situation Northby,[29] for example, studied the differences in the scores made by pupils on five different tests of a group of twenty words In the first test the words were embedded in an interesting story which the children wrote from dictation

[28] Chicago Science Research Associates

[29] A A Northby Comparison of Five Types of Spelling Tests for Diagnostic Purposes *Journal of Educational Research* Vol 29 (January 1936) pp 339 347

The second test consisted of twelve sentences containing the same words The sentences were dictated at a standard rate, the time for writing being so adjusted that the pupils would be required to write at the normal rate for the grade In the third test the pupils wrote the same words as a list In the fourth test the children selected the correct form of spelling from among five forms, four of which were incorrect In the fifth test the children spelled the words aloud in an individual test in a room adjoining the classroom The results were as follows

Form of Test	*Average Number of Words Spelled Correctly*
Story form	8 51
Sentence dictation	8 32
List form	10 02
Multiple choice	13 83
Oral form	11 18

Wide differences are shown in the scores for the different tests although in each case the test words were the same The multiple-choice form was much easier than the sentence dictation form The difference between the two scores was 5 51 words correct, or about 66 per cent of the score on the sentence dictation form The fact that the children were required to write at a standard rate evidently affected their performance in spelling It is also likely that pupils may be able in some cases to recognize the correct spelling although they may not be able to spell the words when they are dictated Spelling words in list form is also easier than either the sentence dictation or story forms These results suggest the need of recognizing the fact that a pupil's performance on a single test of spelling should not be regarded as a sure index of what his performance would be on another test of the same words given under different conditions Similarly it is true that a pupil s performance on a spelling test is no reliable index of his spelling in other situations, for example, in writing compositions or letters or his spelling in free activities carried on in life outside the school A score is at best an index of what the pupil's performance was on the test as it was administered It is therefore desirable for the supervisor and teacher to scrutinize the work of the pupil in a variety of situations This is true not only of spelling but of other subjects and skills A pupil s score on a test of general reading ability may be relatively high, however, it may be that in the specialized types of reading required by such subjects as arithmetic, history, or science, he has a marked weakness that must be studied in connection with the work in these subjects A pupil may be competent in computational arithmetic during a test period but otherwise show marked inaccuracy, his desire to make a good score on a test may have been the deciding factor which led to a satisfactory performance on the test

2 *Limitations of scope and validity of tests* In addition to the difficulty of interpreting the results of tests because of the variability of the

responses of the individual under different conditions, the following limitations of tests are sometimes mentioned

1 Tests do not measure with complete accuracy
2 Tests do not measure behavior under normal life conditions, hence, test results do not indicate pupil performance under other than test conditions
3 Tests measure only formal relatively narrow outcomes of education, such as knowledge of facts specific skills, and simple abilities Emphasis on test results is a measure of ability has a narrowing effect on classroom instruction when the goal is to make a satisfactory score on such tests
4 It is not possible to measure many of the important outcomes of learning that are of an intangible type such as attitudes appreciations insights and methods of thinking, although progress has been made in this direction
5 The use of test norms as uniform standards for all children tends to 'strait jacket' education It is insisted that norms should be set up for each individual in the light of his level of development and rate of growth
6 The technical aspects of test construction demand specialized training that many teachers do not possess, hence many objective tests prepared by teachers have serious deficiencies

3 *Criticisms of state wide examinations* The use of state wide examinations prepared by a central agency is a common practice in about thirty states at the present time Cooperative testing programs are also promoted by the Cooperative Test Service of the American Council on Education and by other agencies The use of these examinations to some extent is contrary to the point of view expressed in the preceding paragraph The influence of these examinations depends on the nature of the tests and the use made of the results, since they affect greatly how and what pupils study and what teachers teach Good tests stimulate good teaching and efficient learning The use of poor examinations in a wide variety of localities leads to the stagnation of objectives and the regimentation of the curriculum It tends to reduce education to a mechanical process of memorizing answers to factual questions Learning is then *no longer* the vital *functioning* activity it should be Douglass has summarized as follows numerous objections by a number of educators to the use of state and national examinations [30]

1 There is danger of artificially determining objectives and methods and of "freezing" the curriculum
2 A state wide testing program may lead to cramming, to regimentation, and to mechanization
3 It tends to dwarf the teacher and to reduce him to the status of a tutor for examinations
4 It emphasizes memorizing
5 It prevents adaptation of instruction to the needs of local groups
6 It leads to standardization and undesirable uniformity

[30] Harl R Douglass 'The Effects of State and National Testing on the Secondary School' *School Review* Vol 42 (September 1934) pp 497 509

7 It emphasizes those outcomes that can be measured by objective tests
8 It is a barrier to the further evolution of secondary education

4 *The values of tests* Though these limitations must be considered, tests have important values that may be briefly listed as follows

1 They furnish in a short time a wealth of important information about the current status of the educational product
2 They aid in the setting up of reasonable goals of attainment adapted to the level of development of the pupils
3 They help to locate the pupils' specific weaknesses and deficiencies which should be corrected
4 Test scores serve as incentives to learning when the pupils are repeatedly given definite information as to their strengths and weaknesses
5 Standard tests make it possible to measure the progress of pupils at regular intervals so that necessary adjustments of instruction may be made
6 They are essential tools in the carrying on of experimental studies of organization methods materials and means of instruction
7 The use of standard tests instead of conventional examinations eliminates the element of personal opinion in marking the work of pupils increases the reliability of the measure used and greatly reduces the labor of scoring
8 The recent emphasis given to the development of tests measuring a wide range of outcomes of learning described earlier in this chapter, has brought to the attention of teachers many objectives that have often been overlooked by them

Lindquist [81] has very effectively summarized the functions that a standardized survey achievement test is intended to serve His statement which is given below makes clear some of the important issues that arise in interpreting and utilizing the results of such tests and the misuse of tests by supervisors and teachers

1 Comprehensive standardized achievement tests for elementary-school use measures skills and abilities which are continuously developed over a period of years both in and out of school and in all departments of instruction No teacher can alone be held responsible for the performance of her pupils on such tests
2 The major purpose of a standardized test is to reveal individual differences
3 Individual differences in any single grade are sometimes more than ten times as great as the differences in average ability from one grade to the next
4 To serve its purpose effectively a test intended for any one grade must contain some items far beyond and others far below, the ability of the average pupil in that grade
5 The content of such a test cannot indicate what should be taught at any grade level Neither can such tests reveal how well the teacher has "covered" the course of study for her grade and subject

[81] E F Lindquist Standardized Achievement Tests and Their Relation to Curriculum Content, in *Appraising the Elementary School Program, Sixteenth Yearbook* of the Department of Elementary School Principals (Washington, D C, National Education Association 1937) pp 479 484

6 When a standardized test is uncritically used as a list of minimum essentials, or when all pupils are drilled on all of the test content, many pupils are forced to attempt tasks for which they are not ready or which are so far beyond their ability as to destroy their self confidence and deaden their interest

7 The standardized survey test should be looked upon solely as a measuring instrument, not as a teaching instrument or as an abbreviated course of study

An excellent summary of the general uses of tests in the instructional and supervisory program in a typical school, prepared by Cook, is given below [82]

1 To redirect curriculum emphasis through
   a Measurement of the extent to which educational objectives are being realized
   b Measurement of as many desirable educational outcomes as possible
   c Clarification of educational objectives
   d Diagnosis of weaknesses in the instructional program
   e Discovery of inadequacies in the curriculum content
2 To provide a basis for educational guidance of pupils by
   a Predicting pupil performance
   b Classifying pupils
   c Diagnosing learning difficulties
   d Setting up standards of pupil performance
   e Discovering special aptitudes
   f Discovering pupils in need of guidance and individual attention
   g Measuring pupil achievement
3 To encourage pupils to put forth their best efforts by
   a Enabling pupils to think of their achievements in objective terms
   b Giving pupils credit for the progress they make rather than for the level of achievement they attain
   c Enabling bright pupils to compete with superior pupils in other schools over a wide area
   d Promoting competition between groups
   e Enabling pupils to compete with their own past records
   f Measuring achievement objectively in terms of accepted educational standards, rather than by the subjective appraisal of teachers
4 To direct and motivate supervisory effort by
   a Discovering teachers in need of supervisory aid
   b Giving the supervisor a measure of the effectiveness of his school organization, and of his supervisory and administrative policies
5 To provide a basis for the marking and promotion of pupils
   a The report card used in the laboratory schools devotes four times as much space to personality and physical traits as to educational achievement The marks in educational achievement are based on progress made during the marking period, and not on the level of achievement attained
   b Promotions are made on the basis of physical and social development Adjustments are made in the primary grades Above the primary grades

[82] W W Cook The Use of Tests in a Supervisory Program ' in *Appraising the Elementary School Program, Sixteenth Yearbook* of the Department of Elementary School Principals (Washington, D C National Education Association, 1937), pp 470 478

regular promotion is universal The average range of ability within each grade is approximately five years This is no greater than in other schools where retardation is a common practice

6 To build and maintain desirable skills, abilities, and understandings (Test periods are considered as very effective learning periods as well as testing periods)

Studying character and personality traits Numerous devices have been developed for describing and evaluating character and personality traits The kinds of techniques that have been devised may be grouped as measures of (1) knowledge and information, (2) attitude and opinion, (3) emotional adjustment and temperament, (4) interest patterns, (5) appreciation, (6) conduct and behavior, and (7) rating scales[33] For extended discussions of tests in this field the reader is referred to the three volumes, Hartshorne and May, *Studies in Deceit* (1920), Hartshorne, May and Maller, *Studies in Service and Self-Control* (1924), and Hartshorne, May, and Shuttleworth *Studies in the Organization of Character* (1930), published by The Macmillan Company

Few if any of these devices have passed beyond the experimental stage in psychological laboratories None has been produced of sufficient practical significance or meaningfulness to warrant extensive use in the hands of the typical classroom teacher Because of the obvious importance of tests of this kind however as a means of appraising important kinds of educational outcomes, it is essential that the supervisor and teacher be familiar with the efforts being made to devise satisfactory instruments and when possible to assist in their development and application These devices should be supplemented by less formal techniques—discussed in the preceding section—such as observation, interviews analyses of records of various kinds, questionnaires, and the like

1 *Measures of knowledge and information* In this group are included tests of moral knowledge and ethical discrimination On available tests of this kind the scores in general show high correlations with intelligence and low correlations with actual behavior Hartshorne and May found an average correlation of .70 between intelligence and moral knowledge for pupils in grades five to eight Correlations between scores on tests of honesty, cooperation, or moral behavior and moral knowledge are extremely low, in general about .25 There is an obvious need of developing tests of this kind that yield scores more closely related to actual conduct

Typical tests in this field are

TOMLIN, F E, Best Thing to Do (Stanford University, Calif, Stanford University Press, 1931)

HILL H C, and WILSON, H, A Test in Civilization (Bloomington, Ill Public School Publishing Co, 1928)

[33] The authors are utilizing here a classification of tests proposed by Julius Maller in Character and Personality Tests (New York, Bureau of Publications, Teachers College Columbia University, 1937), Mimeographed bulletin

KOHS, S C, Ethical Discrimination Test (Chicago, C H Stoelting Co, 1922)
Moral Knowledge Tests of the Character Education Inquiry (New York, Bureau of Publications, Teachers College, Columbia University)

2 *Measures of attitudes and opinions* Problems—like those of a political and of a social nature—which lend themselves to differences of opinion and attitude are dealt with in this kind of test Scores do not correlate as highly with intelligence as do scores on tests of moral knowledge and information The chief difficulty is that the expression of the individual's attitude or opinion on such tests may not be a true statement of his actual views There is considerable evidence that there are individual differences in the degree of stability and constancy of opinions In some tests the consistency of answers or the person's tendency to take an extreme position forms the basis of scoring

Thurstone,[34] Remmers,[35] and others have devised means of appraising the attitudes of people toward various items, such as the church, democracy, school subjects, occupations, and economic issues Attitude scales make it possible to determine the individual's points of view and their strength or intensity and to discover conflicts or inconsistencies in them Such scales can be administered at the beginning of a period of instruction to determine the views held and again at the end of the period to discover what changes have taken place during instruction

A portion of A Scale of Beliefs, devised by Grim, is given below It deals with militarism, nationalism, and racialism The student response is secured for each item by the "agree—uncertain—disagree" technique A scoring key makes it possible to determine the degree of conservatism of the student on the major items included in the scale

TEST 42

A SCALE OF BELIEFS[36]

1 Citizens who criticize the Constitution of the United States are unpatriotic
2 War maims and kills the finest of the nation's manhood while the physically unfit survive
3 The white man has clearly shown the superiority of his race and should continue to exercise leadership over the Negro for many years
4 The movement to outlaw war by treaties is merely a hopeless empty effort
5 When we have any differences with other countries we know that we are always right because the government of our country is thoroughly democratic
6 People of the white race are born superior to people of other races

[34] L L Thurstone University of Chicago Attitude Scales (Chicago University of Chicago Press)
[35] H H Remmers and E B Silance, Generalized Attitude Scales, *Journal of Social Psychology* Vol 5 (August 1934), pp 298 312
[36] Paul K Grim A Technique for the Measurement of Attitudes in the Social Studies *Educational Research Bulletin*, Vol 16 (April 15, 1936), p 99

7 Since the last war was followed by a period of prosperity, a good way to end the depression is to start a war
8 I believe that armaments tend to provoke war by creating suspicion, fear, and hatred among nations
9 The Negro should be given the same educational advantages as the white man
10 If the interests of our country clash with the interests of humanity in general our first loyalty should be to humanity rather than to our country

Statements 2, 4 7 and 8 relate to militarism, statements 1 5 and 10 to nationalism statements 9 6, and 9 to racialism

How may we know for certain that an individual possesses a given attitude or not? Undoubtedly, the most direct method is observation of his behavior This method is not practical with large groups, and hence recourse has been taken to the use of verbal methods The difficulty here is that the individual may check an attitude known to be desirable which is not consistent with his own conduct The susceptibility to faking is being overcome by methods of checking For example it has been found that if two or more sets of questions or test items on the same problem are submitted at different times with different wordings, and preferably with a concealed approach in some of the sets a consistency in replies is found Consistency is fair evidence that a persistent attitude or understanding is present It has also been found that in the case of truly vigorous attitudes on some point these will influence verbal responses more strongly than the knowledge of what the "desirable" or "correct response is

The reader is referred to the book by Thurstone and Chave, *The Measurement of Attitudes*,[37] for a complete discussion of the means of appraising attitudes

9 *Tests of emotional adjustment and temperament* These tests are often referred to as tests of personality adjustment They utilize direct and indirect means of measurement The direct methods include tests of self description, such as the questionnaire form used in the Woodworth and Cady Personal Data Sheet,[38] and question sheets such as are used in Bell's Adjustment Inventory[39] Maller's Character Sketches,[40] and Symonds' Adjustment Questionnaire[41] These tests are useful for diagnosing various forms of maladjustment and have relatively high reliability The chief criticisms of these tests are that responses are not equally stable for all individuals and that they may be affected by a temporary mood The person being tested can vary his answer at will especially if his score will have practical consequences

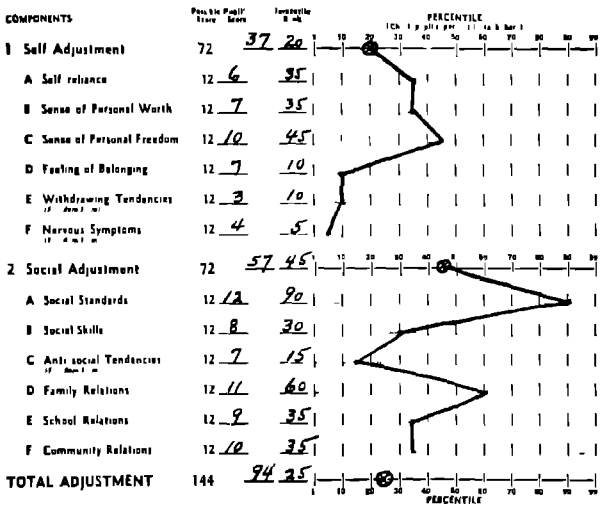
[37] L L Thurstone and E J Chave *The Measurement of Attitudes* (Chicago University of Chicago Press 1929)
[38] Chicago C H Stoelting Co, 1929
[39] Stanford University Calif Stanford University Press 1938
[40] New York Bureau of Publications, Teachers College Columbia University 1932
[41] New York Bureau of Publications Teachers College Columbia University 1932

The direct approach to the measurement of emotional adjustment includes various devices for free association in which the person being tested gives associations with key words which are then compared with responses made by normal and abnormal individuals Tests of this kind are Maller's Case Inventory, Revised,[42] and Rorschach s Psychodiagnostic Test [43]

The Maller Case Inventory is a battery of four tests The letters CASE represent the initial letters in the following series

1 Controlled Association Test—for the indirect measurement of emotional ized response problems (irrationality)
2 Adjustment Test—a self-description inventory of personal and social ad justment
3 Self Scoring Test—for measuring honesty in classroom situations
4 Ethical Judgment Test—problems of moral conflict and a self evaluation in respect to ethical standards

The norms supplied for these tests show a clear differentiation between normal and problem groups These tests enable the supervisor and teacher to locate potential problem cases in an effective way and can be used in all grades above the fifth



PERSONALITY PROFILE

From California Test of Personality Used by permission of the California Test Bureau, Los Angeles, California

[42] New York Bureau of Publications Teachers College, Columbia University 1936
[43] New York Psychological Corporation 1937

The California Test of Personality [44] provides a profile of percentile positions for total adjustment, for self- and social adjustment, and for twelve specific areas of adjustment A typical profile is given on page 242 An analysis of the ratings for the individual shows the phases in which there is lack of adjustment, particularly in terms of self The subject rates high in social standards but rates low in freedom from anti-social tendencies

4 *Measures of interest pattern* Most of the tests of this group involve self-description They probably are more valid than similar tests of emotional adjustment, since the questions are of a less personal nature Hence the responses of the subject are more likely to be honest When tests of interests are used to determine admission to some institution or appointment to a job however, the subject is likely to give answers which in his opinion will make the best impression Considerable use is made of these inventories for vocational guidance, although their value for this purpose has not been clearly demonstrated

The best known is the Strong Vocational Interest Blank [45] The results of this test help to determine interest patterns which are used in many places as a basis for guidance The Kellogg-Brainard Interest Inventory [46] consists of a series of groups of items carefully selected to secure ratings of the interest of children above the sixth grade in a variety of activities common to them construction, arts, mathematics, science, leadership, and the like A section of this inventory follows

Put a circle around one number after each question

ART

How do you like	*Dislike*		*N*		*Like*
1 To sketch picture outlines of trees, people houses etc?	1	2	3	4	5
2 To draw maps or charts?	1	2	3	4	5
3 To copy cartoons or draw original pictures?	1	2	3	4	5
4 To make sketches of dresses hats, furniture?	1	2	3	4	5
5 To model or carve figures or vases from clay?	1	2	3	4	5

Lehman's Play Quiz [47] is a device for appraising children s interests in various kinds of games The reader is referred to the book by Fryer *Measurement of Interests in Relation to Human Adjustment*,[48] for a detailed discussion of methods of appraising the interests of individuals

[44] I P Thorpe W W Clark and E W Tiegs, *Manual of Directions*, California Test of Personality, Elementary Series (Los Angeles, Calif California Test Bureau, 1939) p 7

[45] Stanford University, Calif , Stanford University Press, 1926 1930 (for men), 1934 1937 (for women)

[46] New York, Psychological Corporation 1938

[47] New York, Association Press, 1927

[48] Douglas Fryer *Measurements of Interests in Relation to Human Adjustment* (New York Henry Holt and Company Inc 1931).

5 *Tests of appreciation* These tests are largely in the field of literature and fine arts, including art and music Appreciation is tested by such means as range of information and judgments of merit, and ratings are given various items as compared with ratings of specialists in the field Typical tests are the McAdory Art Test,[49] Meier-Seashore Art Judgment Test,[50] Kwalwasser Ruch Test of Musical Accomplishment,[51] Kwalwasser Test of Musical Information and Appreciation,[52] and Carrol's Prose Appreciation Test[53]

6 *Tests of conduct and behavior* In this group are included measures of individuals' various characteristics that are undoubtedly the most significant from the social point of view The group contains tests of honesty, persistence, cooperation moral conduct, and the like In many of these tests natural life situations controlled to some extent by the examiner are used, so that the subject responds normally Hence conduct tests are to a large extent valid The major problem involved concerns the consistency of behavior of the individual in other situations similar to the specific test situation Investigators have found relatively low correlations between scores on different tests of conduct This has led to the concept of specificity of character traits which presents serious problems in character education General observation however shows that there is a great deal of transfer and generalization in behavior in social situations Hence the specificity of character traits revealed by tests is at least in part dependent on the nature of the test rather than on the intrinsic nature of character itself

Typical tests in this field are Doll's Vineland Visual and Social Maturity Scale,[54] the Honesty Tests of the Character Education Inquiry[55] and Foofbourow and Keys' Personal Index[56] The three volumes by May and Hartshorne contain a wealth of descriptive material dealing with tests of conduct and behavior to which the reader is referred for further information

7 *Rating scales for content and behavior* To aid in the evaluation of some of the less definite outcomes of education rating scales of various kinds are being devised Although scoring of traits by means of these scales is largely subjective and hence often unreliable improvements in

[49] New York Bureau of Publication Teachers College Columbia University 1929
[50] Iowa City Iowa Bureau of Educational Research and Service University of Iowa 1929
[51] Iowa City Iowa Bureau of Educational Research and Service University of Iowa 1924 1927
[52] Iowa City Iowa, Bureau of Educational Research and Service, University of Iowa, 1927
[53] Minneapolis Minn Educational Test Bureau 1932 1935
It should be noted that most of the tests in music and art which are labeled 'appreciation' tests are actually tests of memory The connection between remembered facts about music or poetry and appreciation has not been established
[54] Vineland N J, Department of Research, The Training School, 1936
[55] New York Association Press 1928 1930
[56] Minneapolis Minn, Educational Test Bureau, 1933

the methods of their construction have increased the reliability of the ratings Four forms of rating scales that may be used to advantage in appraising the educational product are given on the following pages

a A New York Scale for Measuring School Habits The New York Scale for Measuring School Habits [57] is a graphic chart It is so arranged that the ratings indicate on a scaled line the degree to which the pupil being rated possesses each trait Descriptive adjectives defining various levels assist the rater to make accurate appraisals An analysis of the ratings for individuals as well as for classes aids the supervisor to determine strengths and weaknesses as the basis for a follow-up program A sample from the scale is given below

NEW YORK RATING SCALE FOR SCHOOL HABITS

By F I Cornell W W Coxe and J S Orleans

Of the Educational Measurements Bureau New York State Department of Education

Name			School	
Age Years	Months	Grade	Date Months	Years
Attention				
Extreme inability to give attention to task		Usually pays attention can be distracted		Always pays very close attention while studying or during class periods
Neatness				
Exceedingly careless in written work		Written work fair in general appearance		Unusually painstaking in general appearance and details of written work
Honesty				
Always tries to get credit for work done by others		Will assume credit, not earned when in a tight place		Never assumes credit for work unless certain he has earned it
Interest				
Shows no interest in any school work		Can be interested in school work by use of ordinary incentives		Genuinely interested in all school work for its own sake

b Analysis of Trait Actions A very suggestive kind of rating scale was devised by Pistor [58] He wished to rate such traits as initiative, work spirit,

[57] E L Cornell, W W Coxe, and J S Orleans, New York Rating Scale for School Habits (Yonkers on Hudson, N Y World Book Company, 1927)

[58] F Pistor A Valid Scientific Appraisal of an Enterprise in Progressive Education *Journal of Educational Research*, Vol 28 (February 1935) pp 433 450

reliability, cooperation, courtesy, and worthy group membership He collected examples of pupil activities that indicated the presence of each trait During observation of pupils he made a record of the number of times each trait action was exhibited by the pupils individually and by the class as a whole The opportunities for developing trait actions listed by Pistor under 'work spirit" are given below

1 To bring in voluntarily from home or elsewhere news clippings, books or selections containing appropriate material to be shared with others
2 To engage voluntarily in art construction or experimentation at home or elsewhere and to bring results for class consideration
3 To bring in voluntarily from home or elsewhere pictures samples, or exhibits to explain or to show to the class
4 To engage in voluntary work for the class or on Saturdays (provided local conditions permit)
5 To volunteer in emergencies for extra work which will be for the good of the group
6 To use spare time wisely at the beginning of a session
7 To use spare time wisely when completing work sooner than others
8 To work without depending upon unnecessary help
9 To concentrate deeply on work which requires close attention
10 To be prompt in getting materials in organizing them for work and in getting started

c Winnetka Scale for Rating Behavior and Attitudes [59] This is a rating scale to be used from the nursery school through the sixth grade in the early study and diagnosis of personality The scale is expressed in terms of situations which teachers most frequently observe The scale consists of specific descriptions of different degrees of merit to help to make the teachers' rating analytical A profile graph shows the rating of a pupil on the five traits included—cooperation social consciousness emotional security, leadership, and responsibility The basis of a rating on each trait is the average score of responses in three different situations Below is given an example of one situation included in the scale with the response levels arranged in order of their desirability

IX When a child has opportunity to take responsibility for a group task—
Directs task and carries it to completion for group benefit (10)
Takes responsibility for a task without being reminded (9)
Takes task but does not complete it (7)
Takes responsibility for task only when especially asked by teacher (6)
Takes responsibility for a task only when special interest is involved (4)
Rarely wants to take charge of task (3)
Cannot take responsibility for a group task (2)

The figures in parentheses are decile scores based on the ratings of 1 100 children of the Winnetka public schools

d Haggerty-Olson-Wickman Behavior Rating Scale [60] A widely used rating scale for locating behavior problems is the Haggerty Olson-

[59] Winnetka, Ill , Winnetka Educational Press, 1936
[60] Yonkers on Hudson N Y , World Book Company 1930

SAMPLE ITEM FROM HAGGERTY OLSON WICKMAN BEHAVIOR RATING SCALE

29 How does he react to frustrations or to unpleasant situations?

Very submissive Long suffering	Tolerant Rarely blows up	Generally self controlled	Impatient	Easily irritated Hot-headed Explosive
(3)	(2)	(1)	(4)	(5)

Wickman Behavior Rating Schedule A short section of this scale is given above The teacher is asked to rate the seriousness of each of thirty-five behavior traits as they occur in a particular child Five degrees of seriousness are provided for in the scale Each point is described and a problem tendency score is given for each point Ratings by the teacher undoubtedly make for more careful observing of the behavior of children as well as for more discrimination in regard to problems of conduct

SELF RATING SCALE

NAME

Here is a self rating scale of ten personal characteristics which should help you to decide what kind of work habits you possess For each personal trait or characteristic there are descriptions of a person who is below average average and above average in that trait Place a check mark (×) on the line opposite each trait at the point which you think describes you best

	Below Average 0 1 2 3	*Average* 4 5 6 7	*Above Average* 8 9 10
DEPENDABILITY	Never does what he promises Always blames other people for his own failures	Will be responsible if supervised	Can always be relied upon Truthful Never knowingly distorts facts
INITIATIVE	Makes no contribution to class work even when urged Always has to be told what to do	Frequently makes contributions to class work and is pleased when he does, but at other times is satisfied to follow lead of others	Always contributes to class work Is full of life Sees jobs to be done

For a comprehensive overview of tests of personality and character, the reader is referred to the "Test of Personality and Character," *Review of Educational Research*, Vol 2 (June, 1932), and Symonds, *Diagnosing Personality and Conduct*, and *Mental Hygiene of the School Child* [81]

e Self-Rating Scales Many schools are making use of self-rating scales to assist pupils to appraise their own characteristics study habits, interests, and achievements The portion of a typical self rating scale given above is one prepared by the staff of the J W Weeks Junior High School of Newton, Massachusetts and illustrates the kind used in a large number of schools at the present time [82]

Similar analyses for eight other personal qualities follow, including cooperation courtesy industry, initiative reliability, self control, and health

The improvement of rating devices Watson [83] has made a summary, which is given below of the findings of research on the status of rating devices A consideration of this statement should assist supervisors to improve the quality as well as the reliability of methods of appraising conduct

1 People differ markedly in their abilities to make ratings (Norsworthy Rugg and Paterson)
2 People differ in their reliability as subjects for ratings Some are easier to rate than others It appears that poor employees tend to be better analyzed than are good ones (Norsworthy Rugg and Kingsbury)
3 Traits differ in the success with which they can be rated In general it seems desirable that ratings be based upon past or present accomplishment that they be as objective as possible, that they be stated unambiguously and specifically (Paterson and Kingsbury)
4 It is desirable to have traits defined This definition should be as simple as possible but unambiguous definite objective (Paterson)
5 There is a tendency to skew the rating of every specific trait in the direction of the total reaction of the rater to subject This is the well authenticated 'halo effect' Knight found a correlation of 94 between ratings on quality of voice and 'moral stamina' (Thorndike Rugg Knight and Fransen)
6 Raters having one form of contact with the individual being rated (teachers of the same school subject) tend to agree more closely than do raters with more diversified contacts By the same token ratings obtained from persons having predominantly one type of contact are much less useful outside of that specific field (Hanna)
7 The average or medium rating of a number of judges is superior to that of a single judge provided there are not great differences in the capability of the judges (Rugg, Paterson and Gordon)
8 Rating scales to be used in ordinary situations should be simply stated and capable of being used easily (Paterson)

[81] Yonkers on Hudson N Y World Book Company, 1931 1934
[82] Quoted in *Learning the Ways of Democracy* (Washington D C Educational Policies Commission of the National Education Association, 1940) p 425
[83] Goodwin B Watson Supplementary Review of Measures of Personality Traits *Journal of Educational Psychology* Vol 28 (February 1937) pp 73 87

9 Raters should be given training (Rugg and Kingsbury)

10 There is no significant difference between the results obtained by scales which demand that the rater shall rank the subjects in order of merit, and scales which provide a range of values which may be assigned each person The latter is more congenial to most raters (Symonds)

11 There is some evidence that immediate emotional reactions affect ratings made upon the 'scale of values' method more than they do ratings made when subjects are ranked in order of merit (Conklin and Sutherland)

12 Statistically considered, seven seems to be the optimum number of intervals for scaling behavior (Symonds)

13 The man-to man scale or 'human ladder has many advantages in securing desirable distributions and comparability of ratings (Scott)

14 The graphic rating scale in which the rater places a check upon a line rather than using statistical terms, has advantages in permitting fine discriminations and in being congenial to raters Adjectives are usually placed along the line to indicate the meaning of sections of the line Such scales should be at least five inches long, no breaks or divisions should be made in the line the extremes and one to three other points should be defined in terms of universally understood words which are not too general in scope, and the favorable extremes should be alternated to correct the motor tendency (Freyd)

15 The scale should ordinarily yield a normal distribution If it does not this may be statistically corrected Individuals who rate constantly low or high should have their ratings corrected (Freyd Kelly, and Paterson)

16 One trait should be rated through the entire group of subjects, rather than permitting the rating of one subject through the entire group of traits (Symonds and Paterson)

17 A graphic scale which gives one sheet for each trait indicating over each of the five or seven sections of the line graph the approximate number or per cent of the group who should be given ratings in that general vicinity tends toward a more widespread and normal series of ratings (Symonds)

18 Self ratings tend to be too high on desirable traits and too low on undesirable traits They tend however, to place the strong and weak points of the individual in their general positions One tends to rate one's own sex higher than the opposite sex on desirable traits, the reverse being true of undesirable traits (Knight, Fransen Kinder and Shen)

19 People who are good judges of themselves tend to be good judges of others

20 While close associates are likely to rate more reliably than are casual associates long and intimate friendships bring marked decreases in the reliability of ratings Persons tend to overrate intimate friends on desirable traits and underrate less desirable traits (Knight and Shen)

21 General all around value' is frequently more reliably rated than are some of the more specific qualities involved (Rugg and Slawson)

22 Ratings become more reliable when a general trait (for example, developmental age) is broken into a number (18) of specific factors (Furfey)

23 Ratings of which the rater expresses himself as very sure' are markedly more reliable than are ordinary ratings (Cady)

24 Raters are frequently unable to justify ratings, or are apt to give absurd rationalizations This does not, however, indicate anything about the reliability of the rating (Landis)

25 Judges who have been asked to observe for several months, preparatory to rating, presumably give better ratings than do judges whose observation has been more or less casual (Webb)

Studying the health and physical condition of children The health and vitality of its people are great assets to a nation Society has recognized the importance of health by assigning to the schools the task of safeguarding the health of the children The basis of an intelligent program of general health and physical education should be an awareness of the health problems of the individual and the community as revealed by systematic examination and study

The most important outcomes of health education are good physical condition adequate health habits, and proper attitudes toward healthful living The first of these outcomes can be determined by thoroughgoing physical examinations of the kind now required by law in a number of states The data revealed by such examinations can easily be summarized and an appraisal made of the health status of the pupils Teachers must also learn to recognize the symptoms of common diseases and bring them to the attention of the medical authorities The chief problems involved in the supervision of these physical examinations are their inadequacy in many instances when superficial tests are given because large numbers of children must be examined, and the difficulty of securing action by parents and teachers to correct unsatisfactory conditions The close relation between learning and the physical condition of a pupil makes it necessary to give more thorough going physical examinations to children experiencing learning difficulties than need be given to children who are making normal progress A complete health record is therefore an essential element in a well rounded pupil accounting program

To measure the development of adequate health habits physical efficiency and skills, and attitudes toward healthful living, numerous sorts of tests have been devised They may be grouped as follows [64] (1) health knowledge and health habits, (2) physical growth and physical capacity (3) motor abilities, (4) general achievement and athletic proficiency

1 *Health knowledge tests* Tests of this kind measure a pupil's knowledge of many aspects of healthful living Some of the better known tests in this field are the Gates Strang Health Knowledge Tests,[65] and the Wood-Lerrigo Health Scales [66]

2 *Physical growth and capacity* The measures ordinarily used to measure physical growth are for height and weight The Baldwin-Wood Weight-Height-Age Tables [67] conveniently summarize standards for weight and height for age groups It is possible then to determine the

[64] A classification suggested in H A Greene and A N Jorgensen *The Use and Interpretation of High School Tests* (New York Longmans, Green & Co 1927) p 499

[65] New York, Bureau of Publications Teachers College Columbia University 1925 1938

[66] Bloomington Ill Public School Publishing Co 1927 1928

[67] Iowa City Iowa Iowa City Child Welfare Station University of Iowa

per cent the individual is overweight or underweight The per cents in each case that may be regarded as serious are not fully agreed upon, although a deviation of 10 per cent from the weight standard is indicative of a condition that should be carefully diagnosed The influence on weight of such factors as bony structure, heredity, and height must receive careful consideration in interpreting the results for any individual

Physical capacity is usually determined by tests of physical fitness and proficiency The Rogers Strength Test [68] was devised to assist in the grouping of boys for athletic teams and for classes in physical education The strength index that is derived from this test is a score indicating the strength of the large voluntary muscles of the body as revealed by a series of seven tests, and together with lung capacity is a useful measure of general athletic ability The McCoy Measurement of General Motor Capacity is another test of this kind

3 *Tests of motor abilities* Tests in this field deal with various elements of physical ability, such as speed, accuracy, coordination, agility and endurance Knowledge of the degree of the development of such traits is of great value in planning the program of physical education The Brace Scale of Motor Ability Tests [69] consists of a series of twenty activities in the form of stunts which are suitable for ages eight to eighteen inclusive They are easy to administer and to score The McCoy General Motor Ability Test [70] is another test that is suitable for use in this field

4 *Tests of general achievement and athletic proficiency* Measurements of this kind have done much to set up standards of achievement and general physical efficiency of boys and girls and to stimulate interest in physical activities The Detroit Decathlon for Boys [71] has as its purpose the selection of the best all-around athletes of the whole school system The Philadelphia Public School Age Aim Charts [72] set up standards of achievement for a series of stunts for boys and girls of various age groups and make it possible to establish a "physical quotient" for each boy and girl The Athletic Badge Tests [73] of the Playground and Recreation Association of America are another series of tests of the same kind and provide three sets of tests for boys and for girls

Studying mental health conditions Many writers in recent years have emphasized the importance of consideration on the part of the school of problems in the field of mental health One reason for this movement has been an apparent increase in the number of individuals suffering from mental illness It is known that evidences of maladjustment appear at an early age in many cases The sooner they are identified, the more likely it is that steps can be taken to ameliorate the condition

[68] New York, Bureau of Publications, Teachers College, Columbia University, 1925
[69] D K Brace, *Measuring Motor Ability* (New York A S Davies and Co 1927)
[70] Iowa City, Iowa, Iowa City Child Welfare Station, University of Iowa
[71] Detroit Mich , Detroit Board of Education
[72] Philadelphia, Board of Education
[73] New York Playground and Recreational Association 1915

The procedures for identifying mental illness vary from the observations that may be made of pupil conduct by the informed teacher to the clinical examination of a psychiatrist Some of the symptoms can easily be identified, whereas others are deep seated and can be recognized only by the expert A simple classification of difficulties indicative of maladjustment that can be noted by the teacher in the classroom has been suggested by Tiegs and Katz [74]

1 Work methods, such as lack of interest inattention lack of initiative, procrastination, and evasion of work
2 Social adjustment such as rudeness discourtesy, annoying bullying fighting tattling selfishness
3 Authority such as tendency to argue disobedience defiance
4 School regulations such as tardiness, destructiveness, cheating lying truancy stealing
5 Personal adjustment, such as seclusiveness timidity sensitiveness dependence temper tantrums

The evaluation of these difficulties can be objectified by rating scales, records of behavior, and similar procedures described in the discussion of methods of studying personality and character traits

Other kinds of indices of mental illness can also be recognized by the teacher These include such nervous habits as thumb sucking, nail biting tics and speech defects Sexual difficulties, misconduct and delinquent behavior can also be identified Day dreaming and feelings of inferiority are revealed by overt behavior

There are more complex forms of mental illness that the teacher should at least realize may exist These include such complex disorders as the three types of psychoneuroses called neurasthenia, psychasthenia and hysteria In addition there are also major mental disorders such as dementia praecox, manic-depressive psychoses, paranoia, and paresis Whenever the teacher observes unusual symptoms such as erratic behavior, violent reactions and abnormal conduct, the case should be brought to the attention of proper medical and psychiatric authorities In many localities there are special agencies that are concerned with problems in the field of mental health These include mental-hygiene departments, child guidance clinics, divisions of correction dealing with delinquents,[76] social welfare agencies, and charitable organizations of all kinds These agencies deal with many kinds of problems which are of vital concern to the school No educational program can be effective which overlooks the data available in the files of these agencies

An illustrative record is the information in the table on page 253 which

[74] E W Tiegs and B Katz *Mental Hygiene in Education* (New York, The Ronald Press Company 1941) pp 203 204

[75] Sophia H Robinson *Can Delinquency Be Measured?* (New York Columbia University Press 1936)

J B Maller Juvenile Delinquency Among the Jews in New York City *Social Forces*, Vol 10 pp 542 549

gives a summary of the kinds of difficulties exhibited by problem cases that came to the attention of the Child-Guidance Clinics of the Department of Mental Hygiene of the State of New York during the year ending June 30, 1935

PROBLEMS AND DISORDERS PRESENTED BY THE NEW CASES EXAMINED BY THE CHILD GUIDANCE CLINICS CONDUCTED BY THE DEPARTMENT OF MENTAL HYGIENE AND THE STATE INSTITUTIONS FOR THE YEAR ENDED JUNE 30 1935 *

	Number			Per Cent		
	Male	Female	Total	Male	Female	Total
1 Primary behavior disorders	882	406	1 288	32 6	23 8	29 2
a Habit disorders	150	86	236	5 5	5 0	5 3
b Conduct disorders	487	195	682	18 0	11 4	15 4
c Neurotic traits	245	125	370	9 1	7 3	8 4
2 Psychoses	21	23	44	0 8	1 3	1 0
3 Psychoneuroses and neuroses	31	46	77	1 1	2 7	1 7
4 Compulsive disorders including epilepsy	38	26	64	1 4	1 5	1 4
5 Psychopathic personalities	38	23	61	1 4	1 3	1 4
6 Special mental disabilities in writing reading etc	54	6	60	2 0	0 4	1 4
7 Mental deficiencies	639	468	1 107	23 6	27 4	25 1
8 Mental retardation	191	183	374	7 1	10 7	8 1
9 School problems	391	163	554	14 4	9 5	12 6
10 Social problems placement etc	174	185	359	6 5	10 9	8 2
11 Others	248	178	426	9 1	10 5	9 5
Total	2,707	1 707	4 414	100 0	100 0	100 0

* *Forty Seventh Annual Report* Department of Mental Hygiene (Albany N Y, 1935) pp 100 101

The table shows the different kinds of problem cases that may be found in any school system A helpful procedure to discover their frequency is to ask teachers to report the names of pupils in their classes who exhibit unwholesome behavior patterns It is as important to discover the extent of such difficulties as it is to determine achievement in the learning of intellectual skills

CASE A BOY EXHIBITING SERIOUS PERSONALITY DIFFICULTIES [78]

George is a boy who would be classified as a delinquent by virtue of his being a ward of the juvenile court There are many evidences of disturbance in his case, including serious symptoms, such as out of home stealing, truancy, and destructiveness The conflict areas were principally those concerned with his

[78] Norman Fenton, *Mental Hygiene in School Practice* (Stanford University Calif, Stanford University Press 1943) pp 200 201

inability to gain legitimate recognition in the school and elsewhere Insecurity was present in his fears and in the not-too-satisfactory economic situation in the home There were conflicts over his own personal qualities—his failure in school, and conflicts about his social status and the acceptance of responsibilities He has failed to accept the authority of teachers, he has stolen, and he has destroyed property

He utilized all three forms of adjustive response aggression (in his revolt against authority), compensation (in his attention getting behavior) and escape (in his defensive lying) Perhaps the adjustive response most characteristic of his behavior was aggression He probably experienced feelings of resentment, hostility, self pity, fear and frustration His symptoms may be noted in part in this summary and in the longer case history

There are some assets in the case The parents are willing but ignorant The scoutmaster is interested the teachers are anxious to help George He has a number of good traits among them friendliness and loyalty

George s unmet needs are for a healthy body for security in his work, and for legitimate recognition of the things he does at school He needs to have more wholesome interests and associates and to have a basis for feelings of competence Above all he needs the constructive influence of parental helpfulness and wholesome affection The symptoms he expresses indicate that his life is lacking in the fundamental satisfactions of security and recognition When first observed the level of value energy in school and life displayed by George would probably have been characterized as 'drifting , his efforts were aimless, and his activities for the most part misdirected

SECTION 5

ILLUSTRATIVE APPRAISAL PROGRAMS

Informal procedures for studying and evaluating outcomes In many instances it will not be possible to make use of standardized or prepared materials to evaluate educational outcomes In such cases it is desirable that use be made of various kinds of informal procedures such as those suggested by Wesley in the outline below for appraising certain outcomes in the field of the social studies [77]

A PROGRAM OF EVALUATION

1 Concepts	Objective tests which involve at least two meanings of each significant word tabulations of concepts used by pupils, orally and in writing
2 Study Skills	Tests, completion exercises in map reading, problems in making graphs exercises in interpreting cartoons, graphs, and tables, check-lists of pupil procedures in library and study halls
3 Finding Materials	Skills tests, check-lists for guided observation of pupils as they work, time test of skill in using index, contents, title page, card catalogue encyclopedia, etc
4 Information	Objective tests, class marks

[77] E B Wesley, *Teaching the Social Studies* (Boston, D C Heath and Company 1937) pp 595 596

5	Reading Activities	Library circulation records, records of articles and books read (cautiously compiled)
6	Interpretative Reading	Tests in reading social studies materials, multiple choice test containing elements of an outline or summary of material known to the pupil, reconstruction exercises, evaluation by the teacher of the rapid reading of material unfamiliar to the pupil
7	Interpreting Data	Tests of the relevancy of data to particular problems, of the relevancy of statements to a conclusion, exercises in grouping related sets of data lists of data necessary to solve an assigned problem
8	Critical Attitude	Tests involving the evaluation of the reliability of various sources, involving the matching of various types of persons with the fields of their probable competence, involving degrees of probable truth among various witnesses, lists of articles purchased, shows attended and books read, with alleged reasons tests for superstitions a correlation of attitudes with information on the same selected topics, tests on the relevancy of various statements toward the support of a generalization or declaration
9	Interests	Actual choice of books from a varied assortment, observations of those portions of a newspaper which are being read after two minutes observations of those subjects of magazine articles being read after five minutes the content of pupil conversations, choice of projects and problems, games played questionnaires, shows attended, records of hobbies, radio programs heard
10	Cooperation	Check lists of instances of voluntary cooperation, check-lists with graded levels for indicating the quality of cooperation, lists of achievements which are the result of joint enterprises, the number and efficacy of typical student-managed organizations, check-lists of observance of courteous demeanor, tests of attitude toward cooperation
11	Suspended Judgment	A test consisting of sets of statements followed by conclusions, some of which are warranted and others which are unwarranted, tests to measure the change of opinions after hearing a speech, seeing a show, reading a book, tests to see if pupils will refrain from forming judgments on insufficient bases
12	Toleration	Tests on racial and religious toleration, a check-list of instances of favorable and unfavorable treatment of minorities, such as foreigners, Negroes, etc in the school

An illustrative method of studying general outcomes An excellent example of a series of procedures for studying educational outcomes was

recently prepared by Wrightstone [78] He assisted a committee to devise methods of determining to what extent a group of basic objectives accepted by the elementary schools of New York was being achieved The outline given below lists the objectives, defines each of them in some detail, and suggests approaches to measurement A careful examination of this outline will make clear to the supervisor an approach that can be used in any situation

SUGGESTED APPROACHES TO THE MEASUREMENT OF IMPORTANT EDUCATIONAL OUTCOMES

OBJECTIVE 1 To Understand and Practice Desirable Social Relationships

Definition of Objective	*Suggested Approaches to Measurement*
Since character is largely determined by the relationships of an individual to his fellows, the public school will continue to encourage the pupil's practice of the older virtues namely trustworthiness reliability obedience kindness courtesy and loyalty More specifically the goals to be sought in developing not only the pupils ideals but also his conduct with his fellows are A Respect for authority B Leadership activities C Self initiated activities D Respect for the rights and contributions of others E Cooperation (team spirit) F An appreciation of the interdependence of all people G An interest in civic functions and participation for community betterment	The measurement of such specific relationships or factors as respect for others leadership initiative and cooperation may be attempted by means of observational techniques and cumulative observer diary records such as those described in J W Wrightstone Constructing an Observational Technic *Teachers College Record,* Vol 37 (October 1935) pp 1-9 Such aims as F and G in the left hand column presumably might be measured by specially devised pencil and paper tests supplemented by anecdotal records of the kind suggested in J A Randall The Anecdotal Behavior Journal *Progressive Education* Vol 13 (January 1936), pp 21 26

OBJECTIVE 2 To Discover and Develop His Own Desirable Individual Aptitudes

Definition of Objective	*Suggested Approaches to Measurement*
It is the function of the elementary school to develop in every child the ability to express his ideas through such activities as A Telling and writing stories B Writing poetry C Dramatization D Drawing and painting	Certain phases of individual interests and aptitudes might be measured validly by a test employing the paired comparison technique such as that devised at the Ohio State University Elementary School See Vivian Weedon, A Technic for Determining Interests," *Educational Research Bulletin*

[78] J W Wrightstone Measuring the Attainment of Newer Educational Objectives in *Appraising the Elementary School Program, Sixteenth Yearbook* of the Department of Elementary School Principles (Washington D C, National Education Association, 1937), pp 495 501

Definition of Objective

E Modeling
F Construction
G Projects
H Music
I Dancing
J Games and sports
K Social contacts
L Personal conversation
M Leading
N Following

Suggested Approaches to Measurement

Vol 13 (Columbus, Ohio, Ohio State University, November 14 1934), pp 191-197

Other phases might be measured by cumulative observer-diary records, and by qualitative scales of judgment employing the equal appearing-interval techniques such as are described in J W Wrightstone, "Constructing an Observational Technic" *Teachers College Record,* Vol 37 (October, 1935), pp 1-9

OBJECTIVE 3 To Cultivate the Habit of Critical Thinking

Definition of Objective

Long before he starts to school, the child begins to reason from the data at hand Even before learning to talk he finds ways and means of attaining his desires, in his own childish way, he decides between two courses of action, even his attempts through trial and error represent the basic raw material of the thinking process From the moment the child enters the school it should help him realize the need for and give him practice in the art of testing his own thinking Throughout the elementary grades it is the duty of teachers to help children develop ability

A To recognize problems
B To find, select, and reject evidence bearing upon these problems
C To organize materials
D To weigh evidence
E To draw conclusions, that is, to render judgment
F To test their conclusions

Suggested Approaches to Measurement

This objective might be measured validly above the third-grade level by a battery of especially constructed pencil and paper tests devoted to the abilities of pupils in

1 Obtaining facts for problems
2 Organizing facts
3 Interpreting or explaining facts
4 Applying facts to new situations

For a more extended discussion of such tests, see J W Wrightstone, "New Tests for New Needs," *Educational Method,* Vol 15 (May, 1936), pp 407-411

OBJECTIVE 4 To Appreciate and Desire Worth While Activities

Definition of Objective

It is a function of the elementary school to help every child not only to desire and appreciate worth while activities, but also to participate in them for the pure enjoyment he gains from such participation The habits of child

Suggested Approaches to Measurement

This objective might be measured by instruments very similar in nature and construction to those proposed for Objective 2, To Discover and Develop His Own Desirable Individual Aptitudes

Definition of Objective	*Suggested Approaches to Measurement*
hood determine adult life If every child develops an appreciation of, a desire for, and the habits of partici pating in varied activities for pure en joyment, there need be no fear as to how he will use whatever leisure time idult life may give him Activities to be encouraged in the elementary school are art music read ing games and sports, handwork, ex perimentation, travel, trips to places of community interest, and contact with nature in its various forms Not the least important of the goals to be at tained under this objective is the ca pacity to enjoy being alone This objective in its various aspects involves not only a reorganization of the extracurricular activities of the school but also a stimulation of the child's interest and enjoyment through regular curricular activities	There seems to be a great deal of overlapping between Objectives 2 and 4, although sufficient differences may exist to permit development of dis tinctly separate instruments of meas urement

OBJECTIVE 5 To Gain Command of the Common Integrating Knowledge and Skills

Definition of Objective	*Suggested Approaches to Measurement*
While the subordinate elements of this objective are classified under the general heading of 'abilities the at tainment of each one assumes the de velopment of an ideal concerning it and an appreciation of its value	
A The ability	
1 To speak easily with freedom from gross errors	Rating scales on habits and qualities of speech constructed by a teachers committee
2 To organize and present ideas clearly and consecutively in oral language	Rating of a stenographic record of sev eral samples of the pupil s oral ex pression
3 To listen attentively to the oral expression of others	Records of teacher observation related to the attention of the pupil, and subsequent relevant questions or comments
4 To organize and express thoughts in written form	Rating samples of pupil's work by means of a qualitative scale (Hille gas,* Trabue,* Hudelson,† etc)
5 To use good form, order, and arrangement margins, spac ing paragraphing, capitaliza	Pencil-and-paper test, or rating of samples of pupil's work upon a basis or error count per 100 words

	Definition of Objective	*Suggested Approaches to Measurement*
	tion, punctuation, abbreviation syllabication	
6	To spell correctly one's vocabulary	Spelling scale (Morrison McCall † etc)
7	To write with ease, legibility, and speed	Handwriting scales (Thorndike,* etc)
8	To understand and use title page index table of contents, and appendix of a book	Standardized achievement test, such as the Iowa Every Pupil Test of Basic Skills (Test B) ‡
9	To read either silently or orally, with ease, speed and comprehension, material suitable to his age level	Standardized achievement test such as the Metropolitan,† Stanford † etc
10	To use the voice in an agreeable way	Rating scales which might be especially devised by a committee of teachers
11	To reproduce a simple story, news item or part of a lesson after one reading	Special test which might be especially devised by a teacher or a committee
12	To observe accurately	Writing a description of some object or objects displayed for an equal period of time to all pupils
13	To perform accurately the four fundamental operations in arithmetic and to know when to use them	Standardized achievement test (Stanford † Metropolitan,† Iowa Every Pupil Tests of Basic Skills [Test D]),‡ etc
14	To use the more common kinds of measuring devices	
15	To understand and use arithmetical language	Performance scales on measuring the classroom and playground with foot rule, yardstick, etc
16	To understand and use the forms of social arithmetic common to his age level	Analytical Scales of Attainment Arithmetic §
17	To understand geographical principles and their applications to problems of life	Analytical Scales of Attainment Arithmetic §
18	To read and use maps for representing ideas	Special test (Parker-Calkins test may provide significant suggestions)
19	To reconstruct (in imagination) the experiences of people who lived in the past	Special tests Parker Calkins test
20	To understand the civic and social principles upon which American democracy is founded	Essay type tests, rated according to qualitative scales, like Hillegas,* etc
21	To use dictionary, encyclopedia, atlas, indexes, and other reference materials	Special test or Iowa Every Pupil Tests of Basic Skills (Test B) ‡
22	To know and appreciate the elements of natural and physical science in the child's environment	Test of concepts and attitudes in science, especially devised by a committee of teachers

OBJECTIVE 6 To Develop a Sound Body and Normal Mental Attitudes

Definition of Objective	*Suggested Approaches to Measurement*
A Physical health	
1 Proper habits and attitudes with respect to the following, based upon adequate knowledge (*a*) cleanliness, (*b*) fresh air, (*c*) exercise and recreation, (*d*) bodily processes (*e*) relaxation rest, and sleep (*f*) posture (*g*) protection against disease—quarantine, (*h*) care of eyes ears throat scalp feet hands skin, nails and teeth, (*i*) healthful dress (*j*) avoidance of preventable accidents (*k*) foods—eating and drinking	Existing tests for health information and knowledge as well as special tests for health attitudes (e g , the Gates Strang Health Knowledge Test *)
2 Knowledge of and ability to practice 'first aid'	Adaptation of the Rogers battery of physical capacity tests and the use of a physical fitness index, or use of the Neilson Cozens Achievement Scales in Physical Education Activities
3 Knowledge of the effect of harmful drugs, narcotics and alcoholic stimulants	Special pencil and paper tests and a performance scale
B Mental health	
1 Habits of (*a*) concentration perseverance (driving oneself now to attain an ultimate end later) (*b*) generosity (*c*) orderliness (*d*) emotional stability (balanced control of mental states)	Evidence for this might be gained from tests of emotional stability (e g the Woodworth Mathews Personal Data Sheet) ¶ and from anecdotal records and observations which were suggested for Objective 1 To Understand and Practice Desirable Social Relationships See also the Haggerty Olson Wickman Behavior Rating Schedules †
2 Attitudes of (*a*) interest in people and things (*b*) desire to cooperate, (*c*) self control and justifiable self-confidence (*d*) willingness to work (*e*) dissatisfaction with failure and satisfaction with accomplishment, (*f*) tolerance of ideas, (*g*) cheerfulness and friendliness (*h*) sense of humor, (*i*) optimism	

* Published by the Bureau of Publications Teachers College Columbia University New York
† Published by the World Book Company Yonkers on Hudson N Y
‡ Published by the Bureau of Educational Research and Service State University of Iowa, Iowa City Iowa
§ Published by the Educational Test Bureau Minneapolis Minn
¶ C H Stoelting Co Chicago

The important things to be observed in this analysis of objectives and ways of determining the extent to which they are being achieved are the clarity of definitions of each objective, the analysis of each objective, and

the wide variety of techniques that are suggested for measuring the outcomes and describing their nature when suitable standard tests are not available

Reporting pupil progress to parents Interesting and significant developments are to be found in the nature of reports made to parents about the progress of children in our schools Burton summarizes the characteristics of several hundred new-type report cards as follows [73]

1 Conspicuous changes appear in marking by subjects
   a Traditional unexplained single marks for subjects are steadily decreasing
   b Subjects are increasingly being grouped under major broad fields
   c Important objectives to be gained from individual subjects are listed increasingly
   d Definitions for marks, where retained, are increasing
   Social and emotional growth, special interests, attitudes, habits are increasingly included
2 Physical growth and well being health knowledge and habits are increasingly included
4 Increased opportunity for cooperation with parents is indicated
5 Comparative or competitive marking is disappearing with considerable rapidity
6 Individual personalized, letter form reports from teacher to parent are increasing slowly
7 Conferences between parent and teacher appear both as supplements to report cards and as substitutes
8 Special notices of failure sometimes supplement the report card
9 New type report cards are increasingly printed in large type decorated, or otherwise given a pleasing appearance
10 A very marked tendency is apparent so to organize and word all items that the report is easily and immediately understood by any pupil or parent
11 Separate cards for various levels (kindergarten primary upper grades, high school) and for single subjects in high school are increasing

It is evident that reports to parents are in many places keeping pace with changes made in other major aspects of the developing educational scene Emphasis is being placed on the consideration of growth in all phases of pupil personality rather than on the limited evaluation of achievement in subject-matter areas which was the outstanding characteristic of the report cards of the past

Discussion Questions for General Introduction

1 Present arguments agreeing or disagreeing with the hypothesis that the effectiveness of the work of the school can be measured through studying the characteristics and behavior of its products in the affairs of daily life

2 List a number of erroneous views now widely held which would be cleared up through study of pages 248 250

3 Of what *practical* significance to the classroom teacher is the sentence on page 205 beginning, Experiments have demonstrated the fact "

[73] W H Burton *op cit* pp 502 503

4 Describe in some detail a project in which you, either as teacher or supervisor, participated for the purpose of formulating and clarifying objectives as described on pages 207 213

5 Proceed as above for points 3 and 4 on pages 213-214

6 What is the significance of the sentence on page 210 beginning, "The objectives are not stated by grade levels

7 Pages 232 252 consist largely of a descriptive catalogue of instruments and methods of appraisal This is a valuable exhibit but need not be studied with a view to memorizing details After one attentive reading

a List at least three points which were (1) wholly new to you, (2) not new but clarified

b List what you think to be one or two of the most important points to be derived from the discussion, pages 232 252

8 Pages 254 260 contain another important exhibit What in your estimation are the two or three most significant aspects of this exhibit?

9 Summarize arguments from the literature and from experience for and against the use of state examinations

Oral Report for Individuals or Small Committees

1 Describe and critically evaluate the program of appraisal used in your schools most recently

2 If no local program is in operation, select any school survey at random and critically evaluate the means of appraisal used

3 Describe and evaluate critically the application of instruments for the evaluation of the personal-social moral outcomes of education (This should be from experience)

4 Find examples in educational literature of analyses of objectives in some designated curriculum area Show how study of such analyses would be of aid to anyone attempting to (*a*) clarify objectives, (*b*) construct or choose instruments of appraisal

Written Reports for Individuals or Small Committees

1 Examine selected textbooks in some curriculum area and evaluate the testing devices contained in them Note omissions of instruments for appraising outcomes which are clearly implied by the text

2 Select some area of the curriculum, or some narrow phase of an area on a given grade or growth level of the school Prepare a detailed systematic program for evaluating the various outcomes to be expected within the chosen area

3 Design an original appraisal device similar to one of those described in the chapter Define the objective first and then proceed as suggested in the chapter The instrument might be prepared for some on going learning situation and tried upon the pupils

a A problem situation test

b Four (or more) valid essay questions

c A best answer or multiple choice test necessitating judgment

4 Make a critical report upon the use of anecdotal records

a Occurring within your own teaching situation if in service

b Observed by you

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VII

Studying the Capacities, Interests, and Work Habits of the Pupil

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SECTION 1

THE NATURE OF DIAGNOSIS

Relation between evaluation and diagnosis The discussion of techniques of evaluating the educational product in Chapter VI was concerned with methods of determining the extent to which desired educational objectives are being achieved The interpretation of the results of the various means of appraisal leads to the location of strengths and weaknesses of the product The more specific the information is that is secured by this evaluation the more definitely and precisely can we identify the condition Thus a single test of power in reading does not afford nearly as significant information about the status of the area of reading as is supplied by a more detailed method of appraisal which evaluates a group of essential reading skills A reading profile based on the latter results may reveal at a glance a variety of both strengths and weaknesses, information of undoubted value in planning instruction

In diagnosis we are concerned with the critical and analytical study of conditioning factors that are related, favorably or unfavorably, to a desired outcome, especially when there is evidence of unsatisfactory progress The information thus derived helps us to understand the nature of a disability The factors associated with unsatisfactory learning may be resident in the pupil, they may be found in the instructional program, or they may be located in the environment in which the individual lives It is thus evident that there are many elements in a learning situation that may contribute to a deficiency Sometimes a diagnosis based on a casual survey or on the results of a group test is adequate for ordinary purposes, but for seriously handicapped children the approach must be on an individual basis and much broader in its scope and more searching in its attack The techniques of diagnosis are as diverse as are the deficiencies of the individuals that are to be studied and as the conditions out of which the deficiencies grow There is thus no set formula of a procedure to use in diagnosis Available diagnostic techniques should be

used in varying combinations with different individuals, the choice in each case being determined by the elements that may require investigation

The following has already been proposed as a generalized approach to diagnosis

1 The setting up of educational objectives as guides to learning and instruction
2 The appraisal of the educational product by means of a variety of evaluative procedures to locate its strengths and deficiencies, in general or in some specific area
3 The review of previous experience and scientific investigations for ideas as to the probable factors conditioning the growth of the individual or group favorably or unfavorably
4 A preliminary survey of the situation under investigation for evidence (symptoms) of the presence or absence of the probable factors likely to be operative
5 The formulation of a tentative hypothesis or of hypotheses as to the factors most likely to be operative in the case under consideration
6 The use of systematic analytical procedures to study the situation so as to establish with some assurance the presence or absence of the factors that may be suspected to be conditioning growth or achievement unfavorably
7 The instigation of a more effective developmental program on a tentative experimental basis
8 Reevaluation of the behavior, growth, and achievement of the learner to establish the validity of the diagnosis and remedial program and as a basis of further guidance

The first two points in this outline were discussed in detail in Chapter VI In the present chapter points 3 to 6 of the outline will be considered Points 7 and 8 will be treated fully in Chapter XI

The scope of diagnosis Diagnosis is concerned with the well rounded development of all aspects of the personality of the individual, including his physical, intellectual, emotional, social, and moral characteristics The purpose of diagnosis is to secure appropriate dependable information about the individual on the basis of which those concerned with his growth and development can make judgments and subsequently plan and take any needed action The modern school has no desire to mold every individual into one pattern, it seeks rather to help each one to achieve the utmost of which he is capable This utmost will vary from person to person For this reason it is necessary to know the ability, needs, interests, and purposes of each individual as well as his special talents and aptitudes Science has demonstrated that each individual is a unique personality It is therefore clear that the community must plan its total educational program in such a way that it will be suited to the capacities, the interests, and the total personality of the individual

Special consideration should be given to the discovery and development of giftedness and talent Evidence of giftedness should be sought outside the area of general intelligence as measured by intelligence tests

There is no reason for assuming that a high IQ posits creativity, genius or near genius A child no matter what his mental level whose performance in any potentially valuable field is observed to be consistently remarkable might well be considered as gifted, he should be given every opportunity which his talent demands for nurture and continuous growth, constant adaptations should be made, and changes of experience that are necessary to maintain growth should be provided These steps can be taken with assurance when continuous diagnosis and evaluation furnish reliable information as a guide for action At the same time his needs in other fields should not be overlooked

Each individual has in a sense his own direction, rate and pattern of development which differs from that of any other individual Developmental sequences tend to be the same for all, but there are great variations in the levels attained, the amount of retrogression, and the times of attainment Accurate prognosis of future development depends on knowledge as to whether the child is progressing, standing still, or even going backward and the rate at which change is taking place Furthermore each of the integral components of the individual has its own rate and direction of growth Hence it is necessary to consider at all times the changes that are taking place in the total personality of the individual

Nature of deficiencies Deficiencies among learners may vary from those that are minor problems to others that are very serious in nature Some difficulties are of recent origin and can easily be corrected Other deficiencies have persisted for some time and have not yielded to casual treatment Still other faults are more serious and of long standing They may pervade many areas of the learner's personality, and they have not been corrected by previous remedial measures

Learning problems of these varying degrees obviously require different kinds of treatment Faults of the first type usually are readily identified and respond to treatment when handled by competent teachers within regular classes Problems of the second type require more specific attention by a person who has been given special training in the diagnosis and improvement of learning in the area involved Such cases can be dealt with in special classes or by means of carefully adapted individualized instruction within regular class groups Problems of the third type require the attention of a clinic where a comprehensive case study can be made by specialists to discover the subtle, less evident factors in the total situation that are interfering with satisfactory growth Treatment here may also have to be on a clinical basis

Kinds of deficiencies The major types of deficiencies in the various areas of learning and their symptoms should be known in order to facilitate diagnostic study The sources of such lists are theoretical considerations, experimental investigations, day-to day teaching, and clinical experience in dealing with individuals The kind of deficiencies vary from phase to phase of the total personality of the learner and for dif-

ferent areas of learning Their nature also changes as the individual progresses from level to level of the school Many deficiencies unless corrected become more complex and involved as they persist and as the individual grows and matures

An illustration of a formulated list of major deficiencies in a learning area is the list below for reading, prepared by Strang [1]

1 Ineffective habits of recognition and persistent vocalization
2 Inability to apprehend the meaning of words and sentences
3 Inability to get the pattern of the author's thought in an entire passage
4 Inappropriate rate of reading which may be too slow or too rapid for a given type of material and for the purpose which the reader has in mind
5 Inadequate and incorrect interpretation comparison analysis and critical evaluation of the material read
6 The lack of ability to pronounce words correctly and to phrase properly in oral reading
7 Ineffective applications of material read in the discovery and solution of problems
8 Inability to get esthetic appreciation from printed sources
9 Narrow or unsuitable reading interests purposes and attitudes
10 Lack of flexibility in adapting reading methods to the reader's purpose in reading a given type of material

Closely allied with these areas of deficiency are ineffective habits of budgeting time, planning work and attacking a unit of study Inefficiency in locating sources of information in books and magazines is also related to efficiency in reading Even more important though less frequently recognized as a deficiency is a lack of balance in the total learning situation

The significance of symptoms in diagnosis There are characteristic responses and reactions of the learner that will indicate to the alert examiner the possible presence of a deficiency or defect of some kind For example, in the field of reading the following responses are clear indications of some kind of visual problem

1 *Excessive reversals*
2 Omission of words and letters
3 Very low rate of reading
4 Blinking squinting, watery eyes evidences of eye-strain
5 Unhygienic position of holding book while reading
6 Confusion of words of similar configurations such as *rat sat cat*

These and similar symptoms should suggest to the teacher the necessity of an examination of the eyes When a visual deficiency of some kind exists, the correction of the faulty responses in reading will more likely result from a correction of the visual factor than from the use of reading exercises directed at the faulty responses

Similar lists of symptoms should aid the observer in detecting other kinds of deficiencies, such as faulty hearing, malnutrition, glandular dis-

[1] Ruth Strang "Diagnosis and Remediation," in *Reading in General Education*, edited by W S Gray chairman (Washington, D C, American Council on Education, 1940) Ch 9 pp 309 310

turbances, incipient disease, ineffective methods of work, and the like

There are certain areas of disturbance that are of special significance in the field of mental hygiene These have an important bearing on the adjustive process itself The means by which the individual consciously or unconsciously meets any conflict are significant items to be considered in describing his personality The well-adjusted individual is able to face a problem and to make the adjustment necessary to avoid a conflict When there is a feeling of frustration, aggressive action leading to conflict may be taken, or there may be some form of compensation to protect the individual from unpleasant reality or feelings of self pity and uncertainty may prevail Fenton has proposed the following classification of areas of disturbance that influence the reactions and behavior of children [8]

A Tentative Classification of Areas of Disturbance in a Child

1 Disturbance because of insecurity
   - *a* Concern over the parents love for him, over their love for each other
   - *b* Anxiety about economic problems in the home the unemployment of parents poverty or material obligations of any sort illness or death
   - *c* The effects of fears general ones such as fear of the dark, novelty, strangers animals disease or death or specific fears like the syphilophobia of some adolescents or the fear of specific school subjects or skills such as reading or arithmetic or of certain instructors
   - *d* Undue concern over matters of health

2 Disturbances over social status
   - *a* Doubts of his own acceptance or acceptability in the group at school or in the neighborhood feeling that he has unfortunate or unpopular personal qualities his own conflicts over such defects (whether or not they really exist)

3 Disturbances about his own personal qualities nonacceptance of self
   - *a* Feelings of inferiority because of appearance health size strength race family occupation, or personal qualities of parents location or appearance of home etc
   - *b* Self-doubt or distrust about ability (competence adequacy) in schoolwork, chores, social relationships or ability to get on in the world or to justify his family s expectations about him
   - *c* Feelings of guilt over past behavior or present attitudes and feelings

4 Disturbances over the acceptance of reality evasion of personal and social obligations or responsibilities, disagreements with adults, lack of interest
   - *a* The nonacceptance of the actuality of his own life (for example, the type of home or neighborhood in which he lives)
   - *b* Unwillingness to accept the authority of parents or teachers, to do what is asked of him at home or at school through lack of interest or willingness
   - *c* Unwillingness to cooperate with classmates, to acknowledge the rights and property of others
   - *d* The effects of lack of constructive interests
   - *e* Conflicts over choice of a life work over relationships with the opposite sex

[8] Norman Fenton, *Mental Hygiene in School Practice* (Stanford University, Calif., Stanford University Press 1943), pp 221 222

a. General symptoms of ineffective learning Data of various kinds that can be derived from test results, observations or pupil behavior, and the analysis of available records will often give indications that an unsatisfactory condition exists which requires investigation

1 *Low scores on survey tests* When the results of general survey tests show that the achievements of pupils are not up to reasonable standards, the supervisor has a valuable clue to the points at which a study should be made to determine the reasons for the unsatisfactory results The supervisor must of course be certain that the survey test deals with the accepted objectives and the contents of courses being taught and that the appraisal of the results takes into consideration the mental level of the pupils, their home environment, their maturity, the length of the school term, and similar factors that tend to condition their achievement

2 *Low scores in one area* Survey-test results may show that pupil achievement is satisfactory in all but one or two areas If more detailed analytical tests have been used in the survey, the results may reveal deficiency in only one or two of the skills tested This information will clearly indicate the points at which the attack should begin The supervisor must recognize the fact that though the class average may be at or above the standard, there will usually be considerable numbers of pupils whose scores are unsatisfactory This information is of great value to the teacher in adjusting the instructional program to the needs of the individuals

3 *Failure to progress* If observations over a period of time show that there is little improvement or growth in ability, the supervisor should suspect that the instruction is not adapted to the needs of the pupil and that adjustments of various kinds may be necessary

4 *Lack of interest or attention* If there is evidence of lack of interest in the work of the class or of inattention on the part of pupils, the supervisor should suspect that the curriculum may not be well adjusted to the interests and abilities of the pupils, that motivation is lacking and that instructional materials may not be attractive and well arranged

5 *Behavior difficulties* When behavior problems arise in school among older children who are retarded and not successful in their class work, or when there is non participation of pupils in various forms of group activities, the condition is a sure symptom of maladjustment which should be investigated When records of juvenile delinquency in the community reveal an unsatisfactory situation, the school must assume the leadership in a study with a view to correcting conditions in the environment, both in and out of school, that contribute to these results

6 *Statistics about overageness and non-promotion* The analysis of age grade data will enable the supervisor to discover the extent to which the pupils are not making normal progress through the grades, and the number who are underage and overage If the range in ages is very wide, the supervisor may suspect that many of the class activities do not meet

the needs of either the younger or the older children An analysis of teacher's marks and of promotion records will reveal the points at which the pupils are encountering the greatest difficulty, and the subjects that are contributing to non-promotion [3]

7 *Unsatisfactory physical and psychological characteristics* An analysis of the physical and psychological records will enable the supervisor to discover the extent to which the school is providing for children having certain defects [4] The presence in the classrooms of children with physical and mental defects reveals the fact that the program is not meeting its obligations to all children nor adjusting its activities to meet their needs Overt behavior often reveals the presence of physical defects, such as faulty vision or deficiency in hearing

b Specific symptoms in particular fields Symptoms of a much more specific kind than those listed above will suggest clues as to the nature of difficulty in the various areas of the curriculum In many cases definite test techniques have been invented that enable the supervisor to determine with precision the seriousness of the condition of which the behavior is a symptom An illustration of the kinds of symptoms that may be observed in the major subjects of the curriculum is the list, prepared by Brueckner, of symptoms of difficulty in arithmetic [5]

1 *Low scores on survey tests* A score on a survey test more than a year below the standard of the grade is a valid symptom of faulty learning, especially if the pupil's scores on tests in other subjects are average or above
2 *Low scores on analytical tests* Scores that are below standard on tests of processes or elements of a single process indicate the need of more precise diagnosis of the nature of the difficulty
3 *Inability to work three or four examples of a type correctly* Failure to work one example of a given type correctly is not a reliable index of disability When three or more examples of a single type are worked incorrectly, a persistent fault is likely to be present
4 *Inaccuracy of work* Inaccuracy of work is readily determined by finding the proportion of work that is incorrect The cause of the incorrect answers should be determined
5 *Slow rate of work* Slow performance is readily revealed by locating pupils who score low on rate tests Slow rate of work suggests the presence of faulty methods of work
6 *Faulty methods of work* Counting, roundabout methods of work, dawdling over assignments, repetition of work, etc, reveal inadequate control of the process involved

[3] H L Caswell, *Non Promotion in Elementary Schools*, Field Studies, No 4, Division of Surveys and Field Studies (Nashville, Tenn, Peabody College Book Store, 1933)

[4] G L Hilleboe, *Finding and Teaching Atypical Children*, Contributions to Education, No 425 (New York, Bureau of Publications, Teachers College, Columbia University 1930)

[5] Leo J Brueckner, *Educational Diagnosis, Thirty Fourth Yearbook* of the National Society for the Study of Education (Bloomington Ill, Public School Publishing Co, 1935), pp 281-285

7 *Faulty arrangement of work* This symptom usually indicates lack of understanding of the process involved

8 *Guessing* The pupil gives incorrect answers and solutions at random suggesting serious deficiencies in knowledge and skill

9 *Failure to improve with practice* This symptom is readily apparent when standardized practice materials are used which enable the teacher to compare the scores by the pupil in practice on the same exercise from day to day Failure to progress and erratic variations in scores from day to day are significant symptoms

10 *Excessive and unnecessary motor activity* When pupils encounter a special difficulty in working an example a general bodily reaction often results as in excessive head and body movement

11 *Repetition of the work on an example in which the work was partially completed* In adding a long column of figures, pupils often begin the work again before completing the entire column because of faulty control of attention

12 *Confusion of processes* In working examples, the pupil confuses several processes, using elements from each of them, a condition commonly designated as "interference

13 *Lack of interest* This attitude is revealed by such symptoms as failure to complete assignments, indifference to suggested activities and failure to volunteer original contributions

14 *Failure to answer correctly questions dealing with the interpretation of tabular and graphic materials* Pretests of ability to interpret graphs and tables help to locate the points on which help is needed

15 *Inability to array quantitative data in graphic or tabular form* The pupil does not know how to proceed when face to face with a body of data that he must arrange in in orderly way

16 *Inability of the pupil to restate a problem in his own words* This suggests failure to grasp the essential elements of the problem

17 *Faulty concepts and beliefs* The pupil has incorrect concepts for example, of the square foot or erroneous ideas concerning simple economic concepts such as profit

18 *Inability to apply what has been learned in practical situations* The pupil may give the formula for area of a circle, but be unable to make the measurements necessary to find the area of a given circular surface such as a flower bed

19 *Inadequacy of vocabulary* The pupil cannot express essential ideas because he lacks the necessary vocabulary

This illustration of learning difficulty in a school subject does not mean that we stand for compartmentalized subject learning Such detailed diagnoses in specific areas of knowledge are of basic importance regardless of the organization of materials for learning In an activity or experience curriculum these same difficulties are likely to arise Difficulties will doubtless differ in type and severity under different types of learning but nevertheless need to be diagnosed and remedied Furthermore, detailed diagnostic procedures for other than subject-matter learning are indicated later in this chapter and in Chapter VI

c **Symptoms of maladjustment** Symptoms of maladjustment are helpful in identifying various kinds of personality difficulties and forms of mental illness The following list is given by Tiegs and Katz as symptoms

that are indicative of an extreme attitude of inferiority and personal inadequacy [6]

1 *Seclusiveness* The child avoids being with other children, refuses to participate in school activities and seeks to be alone
2 *Self-consciousness* The child is easily embarrassed, appears disconcerted, and is easily upset in the presence of other children
3 *Shyness* The child is reserved, bashful, timid, and afraid to enter into any activity, frequently stating he is unprepared or not qualified to attempt such activity
4 *Sensitiveness* The child is especially sensitive to any criticism or unfavorable comparison with other children
5 *Grumbling* The child continually complains bewails and deplores his condition and the situations in which he finds himself
6 *Projection* The child blames and criticizes other children and sees in them the traits and motives in which he finds his own inferiority
7 *Ideas of reference* The child applies unfavorable remarks as well as any criticism, to himself
8 *Attention-getting* The child attempts to attract attention by any method that will likely be successful he attempts to obtain attention by crude devices without any tangible reward
9 *Superiority* The child will attempt to lord it over other smaller younger children by bullying and browbeating them
10 *Compensation* The child covers up or disguises by exaggerating a desirable tendency or trait his feelings of inferiority sometimes in a socially acceptable manner, and sometimes in a socially disapproved one (delinquency)

The interpretation of symptoms observed in a given case should be made with care This is advisable because of the differences in causative factors in the personality of children who present similar difficulties Because of the uniqueness of each individual and his background of experience it is highly improbable that the same constellation of symptoms and underlying causative factors will be present in several children Fenton has listed the following cautions which he believes should be considered in using any schematic summary of symptoms of maladjustment [7]

1 The meaning of a symptom for practical purposes is not absolute but is relative to the child's personality his relations to his parents, and many other factors, including the mores and standards of the household, class room, neighborhood or community
2 The terms used to designate symptoms are ordinarily vague as to the degree of seriousness involved The same word, for example, "stealing, may mean anything from a petty and insignificant act to stealing in the home to the theft of hundreds of dollars from a store
3 The meaning of a symptom or problem in a child can be adequately defined only by the study of its relationship to the rest of the personality of the child A particular symptom is, to be sure always considered in the diagnosis of the child's difficulty But isolated symptoms are obviously not

[6] E W Tiegs and B Katz *Mental Hygiene in Education* (New York, The Ronald Press Company 1941) pp 341 342
[7] Fenton *op cit*, pp 151 152

nearly so meaningful as the grouping of symptoms and problems found in the child

4 Attention must be given to the possibility of subjective error in the descriptions of symptoms by teachers and parents because of the variations among them in personal sensitivity to different types of problems in children Some adults are excitedly overconcerned, others somewhat indifferent, in regard to identical behavior in children The inability of the observer to record accurately what the child does or to know all the facts—which is an important aspect of the subjective error—may be a source of confusion in the description and designation of symptoms

SECTION 2

WHY CHILDREN DO NOT MAKE SATISFACTORY GROWTH

Causes of deficiencies It is very difficult to differentiate between the causes of a given deficiency and its symptoms or correlates Competent diagnosticians speak of the "cause" of a deficiency as the developmental sequence leading to it" In this sequence there are often certain elements that contribute more than others to the condition For example in one case a certain type of visual defect may contribute decisively to a reading disability, whereas in another case with the same type of defect the individual may have overcome the handicap by adjustments of various kinds Sometimes an apparent cause of a deficiency may in fact be the result of a more remote set of circumstances Lack of interest in reading which might lead a child to avoid reading may thus be the direct result of his inability at an earlier stage to comprehend what was read Failure of the teacher to adapt methods and materials of instruction to the needs and abilities of different children may apparently not affect the learning of some individuals but may lead to serious maladjustments in other cases It is thus clear that what may be a cause in one case may be merely a correlate in another with little if any significance

For purposes of discussion the factors which often appear to operate as causes of deficiencies may be grouped as follows, although in real life they are not so clearly differentiated and rarely fall into such discrete categories

1 Physiological factors
2 Intellectual factors including intelligence
3 Instructional factors
4 Emotional and affective factors
5 Environmental conditions

1 Physiological factors In this group of factors are included such items as health, physical development, nutrition, visual, auditory and physical defects, kinesthetic irregularities, and glandular imbalance It is commonly recognized that ill health, retarded physical and motor development, and malnutrition interfere with optimal learning and growth Large numbers of children suffer from various kinds of visual,

auditory, and other physical defects that interfere seriously in such skills as learning to read and write In young children some of these sense organs are not matured enough to stand the strain on them required by the close work of the classroom Kinesthetic irregularities, such as muscular imbalance of the eye, speech defects, lack of motor control, and mixed dominance of eyes and hands, are known to interfere with the learning of the basic skills Gates [8] has listed as causes of spelling deficiency the following physical conditions (1) defects of sensory mechanisms, including the visual and auditory, (2) defects of the motor mechanism, including general motor incoordination, defective writing, defective articulation, defective eye-muscle control, inappropriate eye movements, and eye-voice span in reading

It has been clearly demonstrated that the various glands of internal secretion, such as the thyroid and pituitary glands, affect behavior This relationship is self evident when one considers the manner in which motivation is influenced through the avenue of the emotions Disturbances of the glandular mechanism contribute decisively to changes in emotional tone and hence to instability of personality

Vitamins and learning Recent research in the field of vitamins suggests that there is some relationship between vitamin intake and efficiency of learning Harrell [9] for example reports the results of an experiment which shows that in sixteen different learning experiences there was in every instance a difference in favor of a group "with increased vitamin intake" Not all of the results were statistically significant but all differences were in the same direction For increased mental efficiency it seems evident that the learner should be well nourished Special attention should be given to see that there is no vitamin deficiency in the diet of the individual

2 Intellectual factors Thorndike [10] has pointed out that intellect has several dimensions Intellect may be thought of as possessing *altitude* or *level,* that is, the height at which the individual can attain success with tasks arranged in increasing order of difficulty The higher the level of difficulty at which success is attained, the higher the level of the intellect Intellect also may be thought of as possessing *width* or *range* The greater the variety of tasks of a given level of difficulty the individual can perform successfully, the greater the range of intellect at that level Intellect also has *area,* or *volume,* terms used to mean the total number of

[8] Arthur I Gates, *The Psychology of Reading and Spelling,* Contributions to Education No 129 (New York Bureau of Publications, Teachers College Columbia University 1922)

White House Conference on Child Health and Protection (New York, D Appleton Century Company, Inc 1932)

[9] Ruth F Harrell *Effect of Added Thiamine on Learning,* Contributions to Education, No 877 (New York, Bureau of Publications, Teachers College, Columbia University, 1943)

[10] E L Thorndike, *The Measurement of Intelligence* (New York, Bureau of Publications, Teachers College, Columbia University, 1929)

tasks of some specified sort at which intellect succeeds In simple language, Thorndike means that intelligence is made up of thousands of specific abilities such as ability to compare, to discriminate, to react rapidly (or slowly), to perceive, to draw, to manage people, and so forth

Most intelligence tests measure the altitude of the intellect Thorndike's CAVD Tests measure a number of the specifics referred to above and thus give a measure of width and area as well as altitude of intellect Information concerning these three aspects of intellect enables one to know not only the relative power of a person's intellect but also, to a degree, what he has done with his intellect, the extent to which he has used it, and the different avenues of interest that he has explored

In contrast to Thorndike's view that intelligence is made up of thousands of specifics we have the "*g* and *s*" theory of Spearman [11] In his view intelligence is made up of a general factor *g*, plus any number of special factors Spearman interprets *g* as a form of energy It may be looked on as energy, plasticity, a favorable balance of various organic conditions, and so forth The *s* factors are such things as musical capacity, mathematical capacity, and so on Thorndike and Spearman differ as to the degree of relationship existing between the different items The technical statistical research [12] is unbelievably complex and may be left for advanced students

The wide range in the levels of intellect among individuals is commonly recognized People vary in intelligence from the level of the idiot to the level of the genius Success in school is in general closely related to level of intellect Pupils at the lower levels of intelligence often encounter serious difficulty in mastering their school work It is known however, that in some cases pupils of a relatively high level of intelligence also experience difficulty in learning some of the essential skills

One of the first steps in diagnosing inability to learn is to determine the individual's mental level The most commonly used index of mental ability is the *intelligence quotient,*[13] which is the ratio of the pupil's mental and chronological ages An intelligence quotient of less than 75 is ordinarily regarded as indicating so low a mental level that the individual possessing it should be assigned to a special class where a modified instructional program can be offered Ordinarily cases with IQ's below 50 indicate the advisability of institutionalization

Sometimes pupils do not learn because of special intellectual disabilities Low scores in one area and high scores in other areas indicate the possible presence of a special deficiency There are many different varieties of disabilities They may be grouped under the following main

[11] C Spearman, *The Nature of Intelligence and the Principles of Cognition* (New York, The Macmillan Company 1927)

[12] L L Thurstone, *The Vectors of the Mind* (Chicago University of Chicago Press 1935) Deals with multiple factor analysis for the isolation of primary traits

[13] L M Terman, *The Measurement of Intelligence* (Boston Houghton Mifflin Company 1916)

F N Freeman *Mental Tests* (Boston Houghton Mifflin Company, 1926)

heads (1) perceptual disabilities, such as slowness of perception of diverse stimuli, (2) deficiencies in visual and auditory memory span, (3) alexia, or word blindness, resulting in inability to recognize the meaning of written or printed symbols, (4) aphasia, a defect in, or loss of, the power of expression by speech, writing, or signs, (5) agraphia, or inability to express ideas in writing, and (6) amusia, or loss of ability to produce or to apprehend melodies and musical sounds

It is important, also, to bear in mind the fact that different kinds of intelligence are now recognized by psychologists,[14] such as abstract intelligence, the kind required for work on intellectual school tasks, social intelligence, the kind involved in social relationships, and concrete or mechanical intelligence,[15] the kind involved in working with tools, machines, and concrete objects These kinds of intelligence exist in varying degrees in each individual, rarely to the same extent in any one person Knowledge of the character of a pupil's intellect is of considerable value in the guidance of learning, in vocational guidance, and in the diagnosis of disability The instructional program of pupils with below *average abstract intelligence and above average mechanical intelligence* should clearly not be the same as for a pupil of high abstract intelligence and low mechanical intelligence The former should probably be guided into a course in some kind of shop work, whereas the latter appears to have the kind of ability required for more academic work Special adjustments must be made in the work of pupils who have special kinds of mental defects that interfere with optimal growth

Insufficient mental ability is listed here as a primary cause, but it may be in fact a secondary cause based upon a defective nervous system, glandular imbalance or the like

Furthermore, sharp distinction must be made between definite mental inadequacy and seeming or deceptive lack of mental ability Lack of mental ability, so-called in many cases, actually turns out to be lack of interest in a poor curriculum and poor teaching, lack of interest or active antagonism due to unfavorable teacher personality, unfavorable home attitudes toward school, lack of energy due to malnutrition or overwork outside school, lack of interest due to continued failure, which in turn

[14] The expression kinds of intelligence' must not be interpreted too literally All the facts concerning the nature of intelligence are not yet available At present the most careful interpretation is that intelligence whatever it is is a basic function of the organism In some individuals it seems to manifest itself most effectively in dealing with abstract ideas, in others with concrete matters, and in still others with social relationships All persons use their intelligence that is have some facility with all three types of material No person has no facility whatever with any one of the types Kinds of intelligence means different manifestations not disparate fundamental types of intelligence

[15] E L Thorndike Intelligence and Its Uses *Harper's Magazine* (January 1920), pp 227 235 Popular account

George D Stoddard, *The Meaning of Intelligence* (New York, The Macmillan Company 1943), Part V

may be due to poor study habits, in turn due to poor teaching, or poor home environment not conducive to study, and so on

Finally, it must be remembered that intelligence, defined as ability to do school work, manifests itself very differently in different situations Previous experience, guidance, success or failure, the total educational situation all affect this The motives and ambitions of the pupil also definitely affect the results obtained as well as the level of mental ability

Studying the mental capacities and special aptitudes of pupils There is no question that mental capacity conditions educational progress Many studies have demonstrated that wide variations in intelligence exist at all age levels and in all grades Children vary greatly both in their ability to learn and in the rates at which they learn It is therefore necessary to organize the educational program so that provision is made for these individual differences

Intelligence tests There are both group and individual intelligence tests which purport to measure the general level of the pupils mental ability There are group tests usable at all levels of the school Some of these tests are verbal, whereas others are non-verbal The latter have been developed for use with children too young to read and with illiterates or handicapped readers Some of the well-known group tests are the Pintner-Cunningham Primary Mental Tests,[16] the Terman Group Test of Mental Ability,[17] the Otis Quick-Scoring Intelligence Test [18] the Haggerty Intelligence Examination,[19] the Kuhlmann Anderson Intelligence Test,[20] the California Test of Mental Maturity,[21] and Thorndike's CAVD Intelligence Examination [22]

Individual mental tests commonly used are the Terman-Merrill Revision of the Stanford-Binet Intelligence Test [23] and the Kuhlmann Intelligence Test [24]

Tests of special aptitude It has been recognized that the tests of general intelligence do not give a measure of the special abilities and talents which some individuals apparently possess This has led to the development of various kinds of tests of special aptitude for certain vocations, such as teaching, nursing, and salesmanship Typical tests of this kind are the Stenquist Mechanical Aptitude Tests,[25] Orleans Algebra Prognosis Tests,[26] and the Seashore Measures of Musical Talent [27]

[16] Yonkers on Hudson N Y World Book Company, 1938
[17] Yonkers on Hudson N Y, World Book Company 1921
[18] Yonkers on Hudson, N Y, World Book Company, 1936, 1937, 1938
[19] Yonkers on Hudson, N Y World Book Company, 1920
[20] Minneapolis, Minn Educational Test Bureau, 1942
[21] Los Angeles Calif Southern California School Book Depository, 1937
[22] New York, Institute of Educational Research Division of Psychology 1927
[23] Boston, Houghton Mifflin Company 1937
[24] Minneapolis Minn, Educational Test Bureau, 1939
[25] Yonkers on Hudson, N Y, World Book Company, 1921
[26] Yonkers on Hudson, N Y World Book Company 1928
[27] New York Silver Burdett Company, 1919

The reader is referred to Hull's *Aptitude Testing*,[28] and Bingham's *Aptitudes and Aptitude Testing*[29] for a detailed discussion of methods of measuring aptitude.

There are certain limitations about the use of intelligence tests that should be borne in mind They have been well stated by Witty as follows[30]

During the past ten years, intelligence tests have been subjected to careful study, and experimental data now enable one to appraise them with considerable fairness and impartiality Today we are aware of the limitations as well as the values of these tests It is evident that many of the high hopes and claims of mental-test enthusiasts have not been fulfilled For example, we are fully aware that a single test is not a reliable measure of the individual's mental ability We have noted some of the hazards in predicting mental growth from test results, and the fallacies and dangers involved in certain educational practices have been cited In addition, we are now able to see how unwarranted and false were some of our assumptions associated with race or sex differences in intelligence Moreover, we have seen the limitations of the test scores used independently in predicting special ability or aptitude Despite these limitations of intelligence and aptitude testing, its use still occupies a significant rôle in educational work When test results are considered in connection with other data in arriving at an estimate of a child's nature and needs, they are of undisputed value Treated in conjunction with developmental data covering physical, emotional, and educational growth, they help us understand children Hazards in their use are numerous, but, notwithstanding these facts, tests may assist the teacher in arriving at a sound basis for intelligent diagnosis, intelligent counseling and intelligent guidance of school children

For detailed discussions of the nature nurture controversy the reader should consult, *Intelligence Its Nature and Nurture, Thirty-Ninth Yearbook* of the National Society for the Study of Education, Parts I and II, published by Public School Publishing Co, 1940 Another important volume in which much of the controversial data is assembled and evaluated is the volume by George Stoddard, *The Meaning of Intelligence*[31]

3 **Instructional factors**[32] Unsatisfactory growth of a pupil may be due to shortcomings in his mastery of what has been taught, to faulty methods of work and study, and to narrowness of his experiential background If instruction has proceeded too rapidly and has not consistently checked

[28] C L Hull *Aptitude Testing* (Yonkers on Hudson, N Y World Book Company, 1928) 535 pp

[29] W C Bingham *Aptitudes and Aptitude Testing* (New York, Harper & Brothers, 1927) 390 pp

[30] P Witty in *Elementary Educational Psychology*, edited by Charles E Skinner (New York Prentice Hall, Inc, 1945) pp 123 130

[31] Stoddard, *op cit*

[32] It will not be possible because of limitations of space to give more than a general statement of the nature of learning factors The reader is referred to the classified bibliography at the end of this chapter for references in which these deficiencies are described and methods of diagnosing them in the various areas of the curriculum are presented

the extent to which the pupil is mastering what is being taught, the pupil may have accumulated a number of deficiencies that interfere with successful progress For example, in arithmetic knowledge of the basic addition facts is essential to successful work in multiplication Weakness in the former will contribute directly to deficiency in the latter Similarly failure in chemistry may be due to low reading ability, or to weakness in mathematics Likewise because of faulty instruction a pupil may have learned inefficient methods of study and bad work habits The following description by Atkin shows the difference in the methods of studying spelling used by children with high and with low learning indices [33]

> The outstanding characteristics of the study methods of children in spelling at the very high learning level are the presence of a very systematic and well-organized plan of study or approach in doing their work All of these children used a number of the following techniques in studying their spelling visualization vocalization transfer syllabication writing down the words on paper while looking at the mimeographed form and writing down the words on paper from memory It is true that the children did not use the above mentioned techniques in the same order, for variation in method was an outstanding characteristic of this group of spellers Another marked feature of the manner in which these children did their work was the zeal with which most of them studied and the unusual display of initiative common to both boys and girls and to those in the two grade groups
>
> Analysis of the study methods of children having very low learning indices reveals many noticeable weaknesses There is a marked lack of systematic method organization and self direction in the study of spelling in this group Most of the cases show a distinct lack of concentration lack of organized study, and lack of effective self direction Such devices as vocalization syllabication, visualization and transfer were used but seldom and then not very effectively

Under this heading should also be considered the influence of matters related to the curriculum, the instructional program, and the materials of instruction that condition learning Such aspects of the curriculum as its scope, its organization, its flexibility and adaptability, and its relation to the needs and interests of the pupils should be examined Such items about instruction as the basis of grouping the children, promotion policies, the underlying philosophy of method, techniques of discipline, the guidance program the skill of the teacher and the like also affect child growth Similarly it is necessary to consider the adequacy efficiency, difficulty, and quality of the materials of instruction as well as the general quality of the school plant and equipment The administrative relations between members of the staff, the morale of the staff, provisions for improvement of instruction, and similar matters are more remote factors that affect the quality of instruction These and other items related to curriculum, instruction, and materials will be considered fully in succeeding chapters A general survey of factors in the instructional situation that interfere with pupil progress was made by a committee of the

[33] S Atkin, *The Study Habits of Pupils with High and Low Learning Indices in Spelling*, Unpublished Master's Thesis University of Minnesota

Department of Superintendence The twenty factors checked most frequently by 1,599 persons in educational positions of various kinds in all parts of the country in a list of one hundred possible items were the following [34]

1 Many schools fail by reason of their meager salaries, to attract and hold as teachers, persons of adequate ability and training for the proper service of children
2 The school often fails to discover and to measure adequately capacities and abilities as a basis for discovering and meeting individual needs and differences
3 Too many teachers fail to bring to their position an adequate knowledge of the laws of child growth and child psychology
4 The school fails at all levels to free itself from practices and procedures which are wholly traditional as to origin
5 Most schools fail to emphasize creative self expressive activity more than the mastery of routine academic material
6 The school too often fails to evaluate the success or failure of its methods, practices and procedures in terms of their effect upon the individual student rather than in terms of their effect upon the group
7 The school fails to correlate closely the subject matter of its curriculum with the experience of the child
8 The school too often fails through carelessness oversight or for reasons of expediency to see that teachers are assigned to the positions for which they have been trained and which they are competent to fill
9 Too many teachers fail to bring to their profession an adequate knowledge of the developing philosophy of education
10 Secondary schools in general fail to incorporate in their organization and courses provision for students not planning to enter college or to train for the professions
11 Most schools fail to reproduce in their classrooms situations which are comparable to and which offer adequate opportunity for training in life situations
12 The school fails to know appreciate and utilize adequately the out of school experience of its pupils
13 Teacher training institutions too often fail to articulate closely their methods and practices with those of the public school system for which they are preparing teachers
14 The school too often violates ignores, or disregards the psychological law of readiness by employing methods, teaching subjects and requiring pupil responses at times and under conditions which violate fundamental and psychological considerations
15 Too many teachers fail to apply to the teaching task those professional principles which should determine their practice with reference to the learning situation
16 The school too often fails to set up and to follow a scientific method and procedure with reference to the promotion of pupils
17 The school fails to govern its procedure with reference to the individual pupil in the light of his capacities and limitations and fearlessly present the implications thereof to the pupil and to the parents

[34] *Five Unifying Factors in American Education, Ninth Yearbook* of the Department of Superintendence of the National Education Association (Washington, D C 1931), pp 397 398

18 Supervisors fail to develop and to apply an adequate and workable policy of supervisory procedure
19 The school fails to make adequate use of the needs of students as a basis for their classification
20 The school has standardized equipment and curriculum to such an extent that the particular and individual needs of pupils and communities may not be met adequately

The students should consult the original report for full details of this important investigation The suggestions for improving these conditions are very suggestive and helpful

4 Emotional and affective factors Emotional factors (such as interests and emotions) and social factors (such as rivalry, cooperation, and place in the group) are directly related to the complex psychology of motivation It is obvious that the responses of the individual to various kinds of stimuli are determined by a wide variety of tendencies to act Some of these tendencies are constructive and valuable others are unwholesome and destructive For various reasons a pupil may have developed a dislike of some subject He may not see its value It may be too difficult for him He may lack important basic foundations It may lie outside of the range of his interests The subject may be poorly presented by the teacher The pupil may lack the capacity of sustained effort The general consequences are a bad emotional state and undesirable maladjustment

Another pupil may not adjust satisfactorily to his classmates his teachers and others with whom he comes into contact The result may either be withdrawal on his part or aggressive behavior He may develop unsocial traits He may commit minor misdemeanors that may ultimately lead to more serious offenses The school must analyze and evaluate the behavior of pupils and seek the type of stimulation that will initiate and sustain activity toward socially desirable goals

5 Environmental factors There are many elements of the environment that affect the development of the individual Some of these conditions are positive and constructive, others, wholly destructive in their influences First of all is the general quality of the social and material environment of the school itself and the nature of the learning experiences that are provided These will be considered more fully in Chapters X and XIV Then the child's behavior reflects the influence of the home, the attitudes and interests of his associates, and the experiences he has in the community The home furthermore contributes to the child's feeling of security or insecurity Frequent migration from one neighborhood to another, poverty unemployment of parents, lack of food, and broken homes are truly disruptive forces that affect the personality of the individual decisively The apparent relationship between environment and delinquency brings into sharp relief the environmental forces that determine behavior Prescott has summarized this point of view as follows [1]

[1] Daniel A Prescott, chairman, *Emotion and the Educative Process* (Washington, D C , American Council on Education 1938) pp 152 153

Delinquents are recruited mainly from those (*a*) who are victims of an intolerable hiatus between desires and the ability or opportunity to achieve these desires, (*b*) who are suffering unbearable repression at home and at school, (*c*) who find it impossible to achieve a satisfactory sense of valued belonging in our society because of racial, religious, or cultural differences, or because of personal stigmata, (*d*) who are deprived of an adequate affectional life by broken homes or because of the personal characteristics of their parents or of themselves, (*e*) whose life has been overstimulated until they thirst for more and more emotion, (*f*) whose life has been starved emotionally until they feel that anything is better than the complete drabness they have experienced, and (*g*) who find in the delinquent a thrill which releases them from unbearable tensions of a wide variety of types Homes and schools will have to concern themselves more effectively with the direction of the desires of their pupils and with experiences that influence the development of basic value concepts

Owing to lack of contacts with social and industrial life in the community through travel, excursions, reading, and the like a pupil may lack the background of experience necessary to make what is being learned meaningful and vital to him The illustrations that have been given are examples of the many kinds of difficulties (which may grow out of environmental factors) that may interfere with progress and growth

While it is evident that the causes of unfavorable development often are to be found in readily identifiable elements in the environment itself the more fundamental questions may be raised What in fact are the underlying reasons for the existence of these unwholesome conditions? To what extent are they beyond the control of the school? The reasons are undoubtedly to be found partly in the social and economic aspects of community life partly in the attitudes of the community toward education in general and partly in the lack of educational leadership Burton has summarized the conditions in the social order which often are the basic underlying causes of the existence of unwholesome influences that affect the growth and development of the individual unfavorably [18]

I *Inequitable distribution of resources* resulting in inadequate financing of schools poor economic status of many homes, etc
  A Inadequate educational situation
    1 Poorly constructed unattractive buildings with poor facilities, inadequate play space and other special items
    2 Inadequate curriculum, poor or nonexistent instructional material large overcrowded classes inadequate pupil experiences, heavy teaching load
    3 Poorly selected, poorly trained, poorly paid teachers
  B Undesirable housing neighborhoods, inadequate recreational facilities
  C Low economic status of many homes
    1 Lack of education resulting in parental antagonism toward school and in lack of cooperation, resulting in truancy and absence
    2 Necessity to supplement family income necessitating work after school resulting in fatigue and other contributing causes

[18] Adapted from William H Burton, *The Guidance of Learning Activities* (New York, D Appleton Century Company, Inc, 1944), pp 459 460

3 Stress and strain within family group due to economic insecurity
4 Absence of books and magazines, library cards, travel experiences, and other cultural items
5 Malnutrition (This is found also in homes of good economic status but for different reasons)
6 Frequent moves in search of employment resulting in changes in schools and gaps in schooling
7 Lack of protection from disease failure to have adenoids removed or other necessary care lack of glasses or other physical aids
8 Lack of quiet place for study

II *Control of school by conservative elements* in present adult generation who received their education in the past by *untrained men, and often cowardly educational leaders*
A Aims of education out of date an undemocratic philosophy of education
B Lack of modern scientific approach
C Undemocratic administration and supervision
D A curriculum poorly or not at all adapted to the needs interests and abilities of the pupils to the needs of the community
E Traditional teaching methods based upon an erroneous conception of the learner and of learning
F Traditional grade organization arbitrary standards of promotion wholly theoretical grade a year progress
G Adult standards of success set up without regard for the nature of the learner of learning of individual differences
H Lack of an adequate program of professional improvement for the staff
I Failure of the professional leaders to inform and educate the public
J Inadequate local financing of school program in all its details with concomitants already listed

III *Low regard for education* for teaching and for teachers on part of substantial numbers of lay public
A Poor financing equipment and program as already listed
B Poor standards for teacher selection and training low required levels of
1 Professional equipment Meager training and experience poor methods ignorance of modern concepts of learning of teaching of results, of evaluation
2 Physical equipment Ordinary appearance average or less than average good health lack of energy
3 Personal equipment Ordinary appearance lack of poise, enthusiasm good judgment, open mindedness and many other traits lack of ambition
4 Social equipment Lack of ability and willingness to cooperate to adapt oneself to be considerate and many other items
5 Intellectual equipment Ordinary or less native ability, poor cultural background narrow interests, poor general information, lack of interest in world affairs and so on

IV *Inadequate understanding by parents* (on all economic levels) of principles of child care and rearing, of human motivations control of behavior and so forth
A Harsh imposed authoritarian discipline—or—
B Overprotection and coddling

C Failure to participate in and guide children's leisure time activities, reading radio listening, movie going, choice of companions, and so forth
D Failure to give security through the above plus inconsistent discipline, guidance indulgence, through lack of protection from adult tensions, problems quarrels and so forth
E Failure in broken homes to protect children from the particular emotional strains involved in this situation
F Exposure to racial, national, religious and political prejudices

V *Presence in our society of large immigrant populations*
A Bilingualism in many homes
B Double load on pupil if required to attend native language or religious in addition to public school
C Inevitable direct contact with racial national religious and political prejudices

The implications of this list of fundamental causes of less than optimum growth of individuals are far reaching and of deep social significance The issues that are raised can in some cases be dealt with locally whereas in the case of others, the financing of education, for example the problems are of national concern

Interrelations of factors Though in certain cases some one of the five groups of factors that have been described in the cause of the learning difficulty, in most cases several interrelated factors appear to contribute to the condition Weakness in reading, for example is sometimes due to combination of low mental ability, lack of experiential background and lack of interest in reading

The following analysis of the variety of factors that are associated in various combinations with the specific area of reading disability illustrates in a concrete way each of the five categories just discussed The list is an adaptation of the discussion in the book by Monroe and Backus [47]

1 Physiological Factors
a Visual defects
b Auditory defects
c Difficulties in motor control
d Physical defects and debilitating conditions
2 Intellectual Factors
a General level of intelligence
b Verbal disabilities
c Peculiarities in modes of thought
3 Emotional Factors
a Conditions contributing to unfavorable attitude toward reading, such as emotional immaturity timidity, predilection against reading
b Conditions the result of reading disability, such as withdrawal, aggressive action, hypertension, and compensating mechanisms
c Associated or conditioned responses, such as reactions associated with fear punishment and similar negative reactions

[47] Marion Monroe and B Backus *Remedial Reading* (Boston Houghton Mifflin Company 1937)

4 Instructional Factors
   a Deficiencies in preparation or readiness for reading
   b Inappropriate reading materials
   c Poor adjustment of methods of instruction to individual differences
   d Poorly motivated work
   e Overcrowded classes
   f Insufficient use by teacher of testing and diagnosis
   g Highly routinized and standardized instructional procedures required by supervisor which discourage flexibility and teacher initiative
   h No planned or adequate remedial program
5 Environmental Factors
   a Lack of cooperation between school and home
   b Emotional stress and insecurity in the home and elsewhere
   c Economic insecurity
   d Frequent migration
   e Illiteracy and language handicaps
   f Meager provision of suitable reading materials

From the list given above of causative factors, the diagnostician can often eliminate certain factors as inoperative on the basis of preliminary information derived from observation, interview, and examination He can then formulate a tentative judgment as to the conditions that have unfavorably affected learning to read By means of appropriate diagnostic methods he should then attempt to establish the correctness of this hypothesis When the causative factors have once been established, they should then be corrected or removed when possible or necessary adjustments made To allow for factors that cannot be corrected, such as a low level of mental ability radical changes in the instructional program may be necessary

SECTION ,

THE TECHNIQUES OF DIAGNOSIS

Levels of diagnosis There are different levels of diagnostic study, ranging from a casual observation by a layman that an individual seems to be hard of hearing to the clinical study of hearing by a specialist, from a general impression that a pupil has difficulty in reading to a critical analysis of the process by which he tries to get meaning from the printed page

The classroom teacher can gain a great deal of information about the pupil's methods of work by observing him while he prepares an assignment in the library or classroom and noting his difficulties As a check on the correctness of these impressions the teacher can make use of the results of group tests or diagnostic tests that locate his deficiencies with greater accuracy and definiteness In case of need of more exact knowledge to establish hypotheses about the status of the individual and the factors involved, use can be made of highly analytical clinical procedures and instruments Discrimination should be used in the selection of diagnostic instruments and indiscriminate testing should be avoided The diagnosis

should be only as detailed as may be necessary to reveal clearly the nature of the disability In general a program of diagnosis should be simple to operate and as easy to apply as is consistent with good results The relatively few cases whose diagnosis requires the use of expensive equipment and materials should be referred to a central clinic for examination Very few communities are able to finance the installation of fully equipped clinics For practical purposes ingenious home-made devices can be put to considerable use There is no hocus pocus about educational diagnosis

Three levels of diagnosis can be identified as follows

1 *General* The procedures at this level include those that are used to make a general evaluation of the characteristics of the educational product that were described in Chapter VI
2 *Analytical* The procedures at this level are diagnostic tests that are intended to locate and identify with precision and in detail the shortcomings and deficiencies existing in some major area of learning
3 *Psychological* The procedures used at this level determine the exact nature and the causes of weaknesses that have been located The techniques include
   a Controlled observation in test situations
   b Analysis of written work
   c Analysis of oral responses or accounts of procedures
   d Analysis of a product by comparison with diagnostic devices
   e Interview or questionnaire
   f Clinical tests and laboratory procedures
   g Analysis of objective records of various kinds

Each method of studying a deficiency discloses certain characteristics of behavior, but each method has its limitations Standardized and informal tests limit diagnosis to the particular situation and form of response elicited Observation tends to limit the analysis to the elements of a situation that are most readily observable and hence diagnosis is often incomplete and overlooks vital elements The analysis of oral and written responses is often limited by their inaccuracy and indefiniteness and the interpretation of the information is usually subjective In the interview there is often an unconscious bias or conflict of personalities The development of clinical and laboratory procedures is still very limited in such areas as personality traits, but there have been rapid strides in such areas as reading and arithmetic The practical value of these procedures has however been amply demonstrated, and the authors recommend their use with full recognition of their limitations In the following pages these procedures will be briefly discussed The fundamental importance of a thorough medical examination when dealing with a child having learning difficulty of a serious kind is merely indicated at this point Special types of information helpful in diagnosing learning that can be secured from competent medical diagnosticians and opticians are indicated from time to time

1 *General diagnosis* The procedures to be used in making a general diagnosis are well stated in the following outline by Woody and Sangren of the steps to be taken in analyzing the results of a general testing program [88]

OUTLINE OF PROCEDURE FOR TEACHERS' CONFERENCE ON RESULTS FROM THE TESTING PROGRAM

1 Hasty survey of City Summaries showing achievement by grades and expected standards of achievement in order to obtain general tendencies in the city as a whole
2 Hasty survey of City Summaries showing the achievement on the various tests by grades in the different buildings to see how the results in a particular building compare with results in other buildings
3 Intensive analysis of the Building Summary with emphasis on the following points
   a General trends of progress
   b Grades exceeding expected or city standards of achievement
   c Grades failing to attain expected or city standards of achievement
   d Grades approximating or equaling expected or city standards of achievement
   e The amounts by which each grade deviates from the expected or city standards of achievement
   f The consistence of the level of achievement in the different grades on the various tests
   g Relation of the achievement on mental tests to that on educational tests
4 Intensive analysis of Grade Summaries by classes with emphasis on points given under 3, provided there is more than one class in a grade in the building under consideration
5 Critical analysis of certain Class Summaries showing the achievement of individual pupils and emphasizing the following points
   a Comparison of the level of achievement in the class with the expected or city standard of achievement
   b The relation of individual achievement to the general level of achievement in the class
   c The number of pupils attaining scores lower than those in the preceding grades
   d The number of pupils attaining scores higher than those in the succeeding grades
   e The consistence of the pupil's achievement on the different tests
6 Enumeration and discussion of factors which might explain outstanding deviations from the expected or city standards of achievement by certain grades or by certain pupils involving the following points
   a Critical comparison of mental and educational levels achieved
   b Historical survey of class or individual pupils which might throw light on the deviations in achievement
   c Discussion of the methods of teaching employed and evaluation of the methods in terms of standard books on methods
   d Discussion of the amount of time devoted to the teaching of the subjects under consideration

[88] C Woody and P Sangren *Administration of the Testing Program* (Yonkers on Hudson, N Y , World Book Company, 1933) pp 248 249

e Discussion of the causes for discrepancies in the results on the tests and the teacher's evaluations of the class or of the individual pupils in the class

f Discussion of the selection of subject matter with emphasis on the course of study the textbook, and the supplementary material used

g Discussion and analysis of the errors made in responses to the test situations to ascertain, if possible the mental reaction causing the pupils to make the errors

h Discussion of the need for supervision and the professional study of the problem

7 The program of remedial suggestions

This detailed program lists the points to be considered by the supervisor and teachers if the results of the testing program are to have the greatest possible value This analysis should help each teacher to study the performance of the class as a whole and of individual pupils The problems that will be raised by such a discussion will ordinarily be numerous enough to warrant a series of conferences at which may be considered ways of determining factors causing inferior results and of improving the situation The details of possible procedures of diagnosing causes of ineffective learning and growth and means of obviating them will be discussed in succeeding chapters

The steps to be taken in evaluating the information secured by other methods of appraisal are similar to those outlined by Woody and Sangren for dealing with the results of tests The evaluation will necessarily be less precise and definite than is possible with tests results because comparable standards are in most instances lacking In all cases the analysis can be done on either an individual or a group basis The total picture should be very revealing On the basis of the facts thus secured, intelligent steps can be taken by the school to bring about an improvement

2 *Analytical diagnostic tests* These tests are more detailed and analytical than the survey tests discussed in Chapter VI In analytical diagnostic tests major abilities such as reading or areas of the curriculum such as the social studies are broken into elements The application of these tests enables the teacher to locate the specific places where weakness exists or where skills break down On the basis of the results it is possible to construct a profile of the individual's status which reveals his strengths and weaknesses The Iowa Silent Reading Tests are an example of this kind of test They measure a considerable number of reading skills, as can be seen from the list of the parts of the test given below [48]

IOWA SILENT READING TESTS

Comprehension

1 Paragraph meaning
- A Social science
- B Literature
- C Science

[48] Yonkers on Hudson N Y World Book Company 1929

2 Word meaning subject matter vocabulary
  A Social science
  B Science
  C Mathematics
  D English
3 Sentence comprehension

Organization
4 Sentence
5 Paragraph
  A Selection of central idea
  B Outlining
  C Organization of paragraph

Location
6 Ability to use the index
  A Use of the index
  B Selection of key words
  C Alphabetizing

TOTAL COMPREHENSION SCORE

Rate
7 Silent reading rate

These tests measure abilities in terms of different types of subject-matter including social science, literature, and science Four major aspects of reading are evaluated, namely, comprehension, organization, location of materials in printed sources and rate of reading Tests of paragraph- word-, and sentence meaning are included for measuring comprehension Under organization there are tests of sentence and paragraph organization Three tests of paragraph organization are included, namely, selection of the central idea, outlining, and paragraph organization There are three tests of skills in locating information, namely, use of the index, selection of key words, and alphabetizing These tests are illustrative of the kinds of diagnostic methods that are very helpful in locating specific strengths and weaknesses of pupils Similar tests are now available in various subjects, including among others English arithmetic social studies, modern languages, and science Many of the new, up-to-date instructional materials, textbooks, and workbooks also include tests useful for diagnostic purposes The results of these tests enable the teacher to discover points at which the class as well as individual pupils need help In some of these instructional materials there are also given suitable corrective and remedial exercises Analytical tests of this kind should always be used to discover specific weaknesses in fields in which the general survey tests have already indicated that a possible deficiency may exist

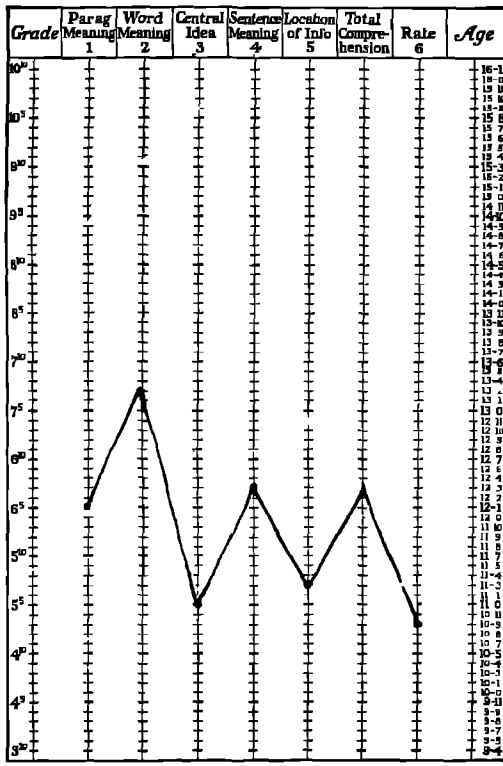
One of the most analytical series of diagnostic tests available is the Compass Diagnostic Tests in Arithmetic[40] The basis of these tests is a

[40] Chicago Scott Foresman and Company 1927

Name John R. Gr 6 Age 12 Date May 12 1938
Teacher Miller School H City Bangor State N.Y.

INDIVIDUAL PROFILE CHART

IOWA SILENT READING TESTS ELEMENTARY TEST



PROFILE CHART FOR SILENT READING ACHIEVEMENT

Used by permission of the World Book Co Yonkers on Hudson, N Y 1933

careful analysis of the basic skills involved in each of the various arithmetical processes Tests have been devised which enable the teacher to determine with a high degree of precision the specific point at which a major ability, for example, long division, breaks down It is then possible to apply the proper remedial measures to the correction of this difficulty The following analysis will make clear the highly analytical character of

the series of tests for fundamental processes in whole numbers and fractions

ARITHMETIC SKILLS

1 Fundamental Processes with Whole Numbers
  a Basic addition facts
  b Basic subtraction facts
  c Basic multiplication facts
  d Basic short division facts
  e Basic vocabulary and definitions of arithmetic
  f Basic rules of arithmetic
  g Higher decade addition
  h Column addition
  i Carrying in column addition
  j Harder subtraction
  k Checking errors in subtraction
  l Borrowing or carrying in subtraction
  m Addition used in harder multiplication
  n Carrying in addition used in harder multiplication
  o Complete process of multiplication
  p Short division involving carrying
  q Multiplication, addition and subtraction used in long division
  r Complete process of long division
2 Fundamental Processes with Fractions and Whole Numbers
  a Changing fractions to equivalent forms
  b Finding common denominators
  c Reducing fractions
  d Addition of fractions and mixed numbers
  e Expressing mixed numbers as improper fractions
  f Subtraction of fractions
  g Reduction of mixed numbers
  h Cancellation in the multiplication of fractions
  i Reduction of fractions and mixed numbers to best form in answer
  j Multiplication of fractions
  k Cancellation in division of fractions
  l Changing from multiplication to division form
  m Fundamentals of division of fractions

There are similar series of tests in the Compass Tests for processes in decimals, denominate numbers, percentage, mensuration, interest, and problem solving In each case the tests enable the teacher to determine with exactness the specific skill in each process at which the general ability involved breaks down

Suggested analytical diagnostic tests Useful tests for analytical diagnosis in the various major fields of the curriculum, in addition to those that have been mentioned, follow

Arithmetic

Analytical Scales of Attainment in Arithmetic (Minneapolis, Minn Educational Test Bureau, 1934) Contains tests in processes, problems, vocabulary, and quantitative relationships

Compass Survey Tests in Arithmetic, Elementary (grades 2-4) and Advanced (grades 4-8) Examinations (Chicago Scott, Foresman and Company, 1927) Contains tests in each operation and percentage

Iowa Every Pupil Test of Basic Skills, Test D, Basic Arithmetic Skills (Iowa City, Iowa Bureau of Educational Research and Science, University of Iowa distributed yearly)

Schorling R, Clark, J and Potter, M, Hundred Problem Test grades 7 12 (Yonkers on Hudson, N Y, World Book Company, 1928) Contains subtests on major operations

Progressive Achievement Tests (Los Angeles, Calif California Test Bureau, 1938) Contains tests in the four operations and of three aspects of arithmetic reasoning

Reading

Gates Reading Survey for Grades 3 to 10 (New York, Bureau of Publications, Teachers College, Columbia University 1939) Gives measures of vocabulary level of comprehension speed and accuracy

Gates Primary Reading Tests (New York Bureau of Publications Teachers College Columbia University, 1945) Gives measures of power in reading words sentences, and paragraphs for grades 1 and 2

Gates Silent Reading Tests (New York, Bureau of Publications Teachers College Columbia University, 1945) Gives measures for speed comprehension and accuracy of comprehension of four basic reading skills for grades 3 6

Sangren Woody Reading Tests (Yonkers on Hudson N Y World Book Company 1927) A series of tests of ten major reading abilities

Van Wagenen Dvorak Diagnostic Examination of Silent Reading Abilities (Minneapolis Minn Educational Test Bureau 1939) Consists of a series of tests for measuring status of ten fundamental elements in reading

Progressive Achievement Tests (Los Angeles Calif California Test Bureau 1938) Contains seven subtests on reading vocabulary and reading comprehension

English Composition

Charters Diagnostic Language Tests (Bloomington Ill Public School Publishing Co, 1922) Contains tests in pronouns verbs and miscellaneous errors

Pressey Diagnostic Tests in English Composition (Bloomington Ill Public School Publishing Co 1936) Diagnostic tests in various phases of composition

Van Wagenen English Composition Scales (Yonkers on Hudson N Y World Book Company 1924) Provides method of evaluating structure thought and mechanics

Progressive Achievement Tests (Los Angeles Calif California Test Bureau 1938) Contains five subtests on language

Social Studies

Analytical Scales of Attainment in History and Geography (Minneapolis, Minn, Educational Test Bureau, 1932) Consists of two series of tests, measuring various aspects of attainment in history and geography

Iowa Every Pupil Test of Basic Study Skills (Iowa City, Iowa, University of Iowa) Consists of tests of various skills required for successful work in history and geography for elementary and high school

Study Habits

Attempts have been made to devise direct tests of study habits Some of the most useful are listed here

Denver Curriculum Dictionary Test Range Grade 7A (Denver, Colo, Board of Education, 1926)

Denver Curriculum Test in Library Sciences Range Grade 7B (Denver Colo Board of Education 1926)

Lewis, E E, Attitudes and Skills in the Use of References Every Pupil Test Range Grades 5 8, 9 12 (Columbus Ohio, Ohio Scholarship Tests, Department of Education 1935)

Tyler Kimber Study Skills Test Range High School and College (Stanford University Calif Stanford University Press 1938)

Wrenn, C G, and McKeown, R B, Study Habits Inventory Range Grade 12 and College (Stanford University Calif Stanford University Press, 1933)

Spitzer H F, Iowa Every Pupil Tests of Basic Skills Elementary and Secondary Batteries (Boston, Houghton Mifflin Company 1940)

Edgar J W, and Manuel, H T, A Test of Study Skills (Austin, Texas The Steck Co 1940)

A very interesting method of measuring the effectiveness of study habits in spelling has been devised by Courtis A standard test of fifty words is dictated Then pupils are given the list words to study for ten minutes Following this study period the test is repeated The growth made during the study period is used as a measure of the efficiency of the study habits Standards for interpreting growth in terms of a new unit of measure, isochrons, are available [41]

3 *Psychological diagnosis* In cases of serious deficiency it is often necessary to make a detailed analysis of the pupil's responses and methods of work so as to make clear their characteristics as a basis for determining more definitely the exact nature of his difficulty The analysis of the kinds of errors made, for example, in spelling, arithmetic, reading, and English, is an illustration of this kind of diagnosis Other examples are the analyses of pupil's study habits, his attention, and his perseverance while at work on an assigned task Diagnosis of maladjustments is another example

Considerable progress has been made in devising analytical procedures for studying and appraising the pupil's behavior and responses Some of the more useful of these techniques will now be described They are in many cases not so precise as the procedures that have been discussed but the information secured by their use is often more revealing This is especially true if the examiner is aware of the kinds of behavior that are likely to indicate the presence of unfavorable conditions and knows how to array situations in which these responses will ordinarily be made evident

[41] Helen Miller *Creative Teaching in the Field of Spelling* (Hamtramck Mich Board of Education 1928)

a Controlled observation Because of the impossibility of appraising by ordinary tests many of the characteristics of the pupil who is having difficulty, the teacher must in many cases use the technique of controlled observation This means the observation of the activities of the pupil while he is at work on some task and the recording of his actions as a basis for later evaluation The teacher can, for example, discover manifestations of lack of control of basic skills by observing the pupil at work For instance, vocalization and lip movement in reading, counting in arithmetic, and incorrect use of laboratory apparatus are some of the kinds of faulty habits readily revealed by observation McCallister [42] has assembled a list of faulty study habits used by pupils in reading and the social studies which can serve as a guide in the observation of pupils at work Wrenn's Study Habits Inventory [43] is an excellent device for evaluating the study habits of high-school and college students An observer can also analyze the kind of contributions and the extent of participation of pupils in class activities,[44] using as a basis of the analysis a list of the types of pupil activity that are desirable or undesirable Blunders and failure can be noted The reactions of various children to different kinds of incentives and to materials and methods of motivation can be recorded This observation can be extended to the study of behavior in the activities on the playground and in the larger community

Morrison [45] has devised the individual attention profile as a means of getting a graphic picture of the degree of attention exhibited by the pupil during a recitation or study period To aid in the evaluation of this record a systematic account of the pupil's behavior and conditions affecting it should parallel the profile

The use of observation in the study of behavior is well illustrated by the elements of an outline devised by Fenton, for the study of the individual student in terms of his needs The outline contains seven sections with the following headings [46]

I The Need for a Healthy Body and Good Physique and Appearance
II The Need for Feelings of Security
III The Need for Social Adjustment and Recognition
IV The Need for Feelings of Competence
V The Need to Accept the Conditions and the Realities of His Own Life
VI The Need to Experience Curiosity and Pleasure and to Acquire Active and Varied Interests
VII The Need to Be Considered a Developing Personality

[42] J M McCallister *Remedial and Corrective Instruction in Reading* (New York D Appleton Century Company, Inc 1936)

[43] Stanford University, Calif, Stanford University Press, 1934

[44] E Horn, *Distribution of the Opportunity for Participation Among the Various Pupils in Classroom Recitations*, Contributions to Education No 67 (New York, Bureau of Publications, Teachers College, Columbia University, 1914)

[45] H L Morrison *Practice of Teaching in the Secondary School* (Chicago, University of Chicago Press 1926) Ch 8

[46] Fenton *op cit*, p 173

The nature of the outline of items to observe is shown by contents of the section on the need for social adjustment and recognition given below [47]

III The Need for Social Adjustment and Recognition

- A Is the student accepted as a member of the group at home without resentment and jealousy by others there? Yes No Without favoritism or preferment? Yes No Does he feel jealousy or resentment toward anyone in the home? Yes No Explain
- B Does he feel that he belongs to his group at school? Does he feel accepted by other children? Yes No By the teacher? Yes No Explain
- C Does he receive recognition for legitimate achievement at home? Yes No In school? Yes No Elaborate
- D Does he need to seek recognition through show off behaviors or other unwholesome attention getting devices? Yes No How?
- E Does he have some special friends in school? Yes No In the neighborhood? Yes No Does he take initiative in seeking friendships? Yes No Comment on the range and quality of friendships
- F Does he have a reasonably unselfish and generous attitude toward others? Yes No Is he mature enough to hold ideals of social betterment? Yes No Explain
- G Does he give evidence of prejudice or antagonisms (racial, religious social sex) which influence his choice of associates or lead to the avoidance of certain classmates? Yes No Specify
- H Does he behave well and observe the ordinary social decorums in the classroom? Yes No Elsewhere? Yes No Comment

b Analysis of written work A test score furnishes a helpful measure of the level of a pupil's achievement but it gives no index as to the quality of his work nor of the kinds of difficulties he encountered or of the errors he made It is possible to use standardized tests constructed in such a way that serious deficiencies or difficulties will be revealed Such tests must be highly analytical In the case of diagnostic tests of arithmetic computation they must give the pupil the opportunity to work three or four examples of a given type [48] If he has errors in only one of the examples the examiner can be fairly certain that no serious difficulty exists If on the other hand the pupil has errors on three or four of the four examples, the examiner can be certain that there is a persistent difficulty the nature of which must be determined by further analysis of the errors on the paper Similar tests can be used for various phases of English composition and reading

To aid in the analysis of errors extensive lists have been compiled for various subjects, such as spelling, arithmetic composition, writing and reading Some of these errors are of minor consequence, whereas others are symptoms of serious weaknesses Random, unintelligent misspellings, for example, are a much more serious symptom of disability than mere phonetic misspellings

[47] *Ibid*, pp 192 193

[48] L J Brueckner and Ella Hawkinson The Optimum Order of Arrangement of Items in a Diagnostic Test in Arithmetic *Elementary School Journal* Vol 34 (January 1934) pp 351 357

An illustrative analysis of defects in written composition compiled by Dora Smith is given below She grouped the faults as follows [49]

1 Lack of Purpose or Motive
2 Lack of Ideas
   a Insufficient detail
   b Failure to sense what interests others
   c Inability to gather ideas about a topic of interest
3 Incoherent Presentation of Ideas
   a Inability to stick to the subject
   b Failure to sense logical relationships between ideas
4 Weakness in Beginning or Ending
   a Failure to arouse interest in the opening sentences
   b Failure to sustain interest to a high point in the end
   c Inability to hold suspense in story telling
5 Lack of Imagination and Originality in Building up Interest
6 Inadequate Vocabulary for the Purpose
   a General lack of words
   b Lack of variety in diction
   c Careless choice of words
7 Undue Repetition of Words or Ideas
8 Lack of Force and Convincingness of Expression
9 Lack of Effective Use of the Sentence
   a Rambling stringy ununified sentences
   b Short choppy sentences
   c Incoherent sentences
   d Monotonous sentence patterns

The recognition of the fact that mechanical errors in composition are probably not as significant as other faults has led to the development of methods of analyzing compositions from the point of view of the richness of their vocabulary [50] their freedom from faulty structure, [51] the freshness and originality of their style,[52] and their general interest to the reader Similar techniques are available for art, home economics, and mechanical drawing

c Analysis of oral responses For some purposes the analysis of oral responses is a valuable diagnostic procedure A record of errors in oral English is in some respects more valuable than an analysis of errors in written composition as an index of the correctness of expression in the affairs of daily life An analysis of the kinds of errors made in oral reading often reveals the kinds of faults that interfere with success in

[49] Dora Smith Diagnosis of Difficulties in English in *Educational Diagnosis Thirty Fourth Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co 1935) Ch 13 p 249 Quoted by permission of the Society

[50] L J O Rourke Rebuilding the English Usage Curriculum to Insure Greater Mastery of Essentials (Washington, D C The Psychological Institute 1934)

[51] Van Wagenen English Composition Scales (Yonkers on Hudson N Y World Book Company 1923)

[52] Marietta Stewart A Scale for Measuring the Quality of Conventional News Stories in High School Journalism, *The English Journal* Vol 23 (March 1934), pp 209 215

SUMMARY OF DIFFICULTIES DETECTED ON SUBJECTIVE ORAL READING EXAMINATION *

Response	Percentage of Pupils
1 Word perception	
a Substitutes words	73
b Has difficulty with suffixes	65
c Omits letters or syllables	54
d Has difficulty with final consonants	49
e Inserts letters or syllables	45
f Uses faulty vowels	41
g Omits words	40
h Inserts words	40
i Guesses	35
j Has difficulty with consonants in body of word	31
k Has difficulty with prefixes	29
l Repeats	28
m Has difficulty with syllabication	26
n Has difficulty with initial consonants	24
o Looks at first letter only	22
p Adds letters	22
q Makes many errors on short common words	22
r Transposes words	21
s Makes partial reversals	18
t Has difficulty with consonant blends	13
u Misplaces accent	10
v Refuses to read and is aided with a difficult portion	10
w Adds syllables	8
x Spells out word	3
y Reverses letters	1
z Reverses words	1
aa Loses place	1
bb Skips lines	1
2 Voice control	
a Irregular breathing	23
b Monotonous	19
c High pitch	18
d Sing song	15
e Lack of rhythm	15
f Too soft	9
g Too loud	6
3 Emotional reactions	
a Lack of confidence	23
b Indifference	14
c Tension or fear	13
d Shyness reticence or timidity	13
e Aggressiveness	9
f Overconfidence	9
g Sullenness	1
h Negativism	
4 Tension movements	
a Hands	23
b Legs and feet	12
c Body	9
b Mouth	5
5 Word calling	
a Inadequate phrasing	21
b Lack of emphasis on meaning	18
6 Posture	
a Head tilt	14
b Book too far away	8
c Book at an angle	6
d Book too close	5
7 Faulty enunciation	33
8 Eye strain	
a Frowning	14
b Squinting	6
c Excessive blinking	5
d Shading eyes	4
e Rubbing eyes	
9 Rate	
a Too slow	17
b Too fast	10
10 Punctuation ignores	25
11 Speech difficulty	
a Blocking	7
b Lisping	5
12 Finger pointing	
a Occasionally	6
b Continuous	1
c Frequently	1

* E A Betts "Reading Problems at the Intermediate Grade Level" *Elementary School Journal* Vol 40 (June 1940), pp 737 746

silent reading Having the pupils give aloud the mental steps by which the incorrect solution of an example in arithmetic was arrived at will enable the observer to discover faulty, involved procedures that cannot be found through an analysis of the written work The results of the application of this technique by Buswell,[33] Brueckner,[34] and others has revealed an amazing variety of incorrect, roundabout procedures in working examples that lead to failure in arithmetic

SELF CORRECTIVE CHARTS FOR HANDWRITING *

Chart	Kind of Defect	Frequency of Occurrence	Total by Types
1 Color	Irregular color	177	177
2 Size	Irregular size	200	319
	Too large size	62	
	Too small size	57	
3 Slant	Irregular slant	240	326
	Too much slant	61	
	Lack of slant	25	
4 Letter spacing	Irregular letter spacing	267	331
	Crowded letter spacing	62	
	Scattered letter spacing	2	
5 Beginning and ending strokes	Irregular beginning and ending strokes	270	381
	Long beginning and ending strokes	63	
	Short beginning and ending strokes	48	
6 Word spacing	Irregular word spacing	171	415
	Scattered word spacing	177	
	Crowded word spacing	67	
7 Alignment	Irregular alignment	300	374
	Writing below the line	58	
	Writing above the line	16	

* From data supplied by Ellen Nystrom supervisor of handwriting Minneapolis Minn

An interesting analysis by Betts of the kinds of difficulties children have in oral-reading examinations is given on page 298 The list is based on the results of observations of seventy-eight fifth-grade pupils and includes not only oral errors made but also other forms of overt behavior, symptomatic of difficulty

[33] G T Buswell, *Diagnostic Studies in Arithmetic*, Supplementary Educational Monograph, No 30 (Chicago University of Chicago Press, 1926)

[34] Leo J Brueckner *Diagnostic and Remedial Teaching in Arithmetic* (Philadelphia, John C Winston Company 1930)

d Analysis of product To increase the validity of diagnosis various kinds of objective devices may be used A common form is to compare some product with a standard chart to determine its deficiencies or faults, for instance, in diagnosing defects in handwriting Freeman[55] and Nystrom[56] have developed two sets of analytical diagnostic charts in handwriting The first series contains scales for evaluating uniformity of slant uniformity of alignment, quality of line, letter formation, and spacing Specimens are rated according to the value assigned the sample in the scale which they most nearly resemble The Nystrom charts have special merit because they are constructed in such a way that pupils can easily diagnose their own difficulties Each chart consists of a series of specimens each of which exhibits a major fault that contributes to illegibility A comparison of the pupil's specimen with those in the chart enabled him to make the diagnosis The list of charts the kinds of defects they reveal, and their frequency are given on page 299

The values and limitations of studies that have been made of the errors and defects found in the oral and written responses of pupils have been summarized by Brueckner as follows[57]

Detailed lists of kinds of errors pupils make in algebra arithmetic, spelling English and reading are available These lists have been supplemented by carefully arrayed descriptions of apparently faulty methods of work ineffective study habits, and undesirable behavior traits however these studies have a number of limitations Some of the lists are substantially complete and of great value in diagnosis others are so general that they are of little assistance Many of the studies that contain detailed lists of the kinds of errors made most frequently by children contain no information as to their criticality as symptoms of important deficiencies or as factors that may substantially lead to serious maladjustments Very few of the studies of errors or apparently faulty methods of work contain data showing differences between the reactions of pupils whose performance is satisfactory and those whose work is unsatisfactory that is they give little evidence concerning valid methods of differentiating the performances of pupils of inferior and superior ability Some of the faults listed are found in the work of both superior and inferior pupils Little is known concerning the prognosis of various types of difficulties and faults Very few studies are available that deal with the persistency of error in the work of pupils a very important factor in arriving at a valid diagnosis Little is known concerning the extent to which various types of specific difficulties are usually eliminated as the learner matures Little is known concerning the relation between the kinds of errors made and the performances of the learner on particular tasks that vary widely under different conditions

Those who have made analyses of errors and methods of work have clarified many issues relative to the characteristics of learning For some difficulties, suitable remedial exercises have been suggested, yet little exact information is available concerning the effectiveness of the various proposal remedial measures for correcting particular kinds of difficulties That many difficulties can easily be cor-

[55] F N Freeman Chart for Diagnosing Faults in Handwriting (Boston Houghton Mifflin Company 1914)

[56] Ellen Nystrom Self Corrective Handwriting Charts (Minneapolis Minn Farnham Press 1927)

[57] Brueckner in *Educational Diagnosis op cit*, pp 152 153

rected is apparent from the results of ordinary instruction Teachers individually and as a group, have accumulated a mass of techniques that they apply with varying degrees of assurance and success This same condition of uncertainty existed in the field of medicine before the techniques of modern science were applied to the study of the prevention and cure of human ills By means of similar scientific techniques the remedies for crucial faults and learning difficulties, as well as techniques for averting their incidence, should be experimentally established in education so that the teacher may undertake corrective work with reasonable assurance of attaining the desired results Here are also involved materials of instruction It is perfectly clear that at present much of our teaching is not intelligently directed toward the achievement of desired goals because we know so little concerning the effectiveness of the materials of methods of instruction that we used The contrast between the scientifically validated techniques of the medical practitioner and the unsystematic, unscientific procedures of the educator is very striking

e Interview and questionnaire When the data secured by tests, observation, analysis of oral and written responses, and other methods

INTERVILW BLANK DEVISED BY MAITER

Name Age Height Weight
Grade Father's occupation Nationality
In what country was he born? How many brothers do you have? How many sisters? How many rooms are there in your home? Do you have a room for yourself? Do you have a radio in your home? A piano? An automobile?
A telephone? About how many books are there in your home?
Are you a member of a club? Name of club or clubs?
Which school subject do you like most?
Which least? Your favorite form of recreation?
How often do you go to the movies? What kind of movies do you like best? Give an example
Has any moving picture ever made you want to do something good?
What for example?
Name of picture?
Has any moving picture ever made you want to do something you should *not* do? What?
Name of picture?
Do you listen to the radio regularly? When?
What is your favorite program?
Which program don t you like at all?
Why? Has any program ever made you want to do something good? What for example?
Name of program?
Has any program ever made you want to do something you should *not* do?
What for example?
Name of program?
Do you suffer frequently from headaches? Colds?
Indigestion? Other illness? What occupation or vocation do you intend to follow? What occupation would you follow if you had your choice? What kind of books do you like best? Do you plan to go to college?
Why?

do not yield adequate information on which to base a diagnosis, the interview must be used For example, if a pupil is unable to write out a meaningful, systematic account of his methods of studying spelling because of his inability to analyze his mental processes clearly, an interview in which the examiner seeks by judicious questioning to bring out the essentials of his methods is the most feasible procedure

When the examiner, having made an analysis of the pupil's written work, is uncertain as to the nature of the difficulty, he should use the interview technique to verify his diagnosis The skilful use of searching questions will usually reveal the difficulty

In many instances it is necessary to interview the pupil's associates, his family, and other persons The use of a formal type of interview blank makes it less likely that significant types of information or symptoms of various kinds of maladjustment will be overlooked than if a casual form of interview is employed Because much of the information secured through an interview may be peculiar to the case, however, the examiner should always feel free to supplement the items included in a standard plan A typical interview blank is given on page 301 It was devised by Maller and is used with the Maller tests of character and personality traits, the CASE Inventory [58]

A highly specialized use of the interview is the psychiatric examination Its function is explained in the following statement [59]

The informational interview,' as it is frequently designated for research purposes, corresponds to the questionnaire technique it consists in asking a number of well-planned and carefully organized questions designed to elicit from an individual what he knows but what he might not be willing or able to tell under ordinary circumstances The educational interview usually consists in asking a child to state his problem directly and then offering criticism and helpful suggestions In the "psychiatric interview' situation the lead as to what should be discussed is largely left to the interviewee, but the interviewer remains much more passive than in the educational interview although his passivity is subject to certain technical restrictions He tries to behave in such a way that exactly those emotions and impulses in the interviewee have a chance to come out which otherwise would be naturally suppressed (cut off from expression and action) or even repressed (cut off from conscious self perception) In this technique it is not so much the content of the discussion as the emotional rapport established between interviewer and interviewee that counts

The limitations as well as values of the psychiatric interview are presented in the following statement [60]

The disadvantages of the psychiatric interview are obvious no well-organized stock of material is derived from it, the collected material appears chaotic, there is no indication of the relative importance of one factor over others, and sup-

[58] New York Bureau of Publications, Teachers College Columbia University, 1934

[59] From W S Monroe, editor, *Encyclopedia of Educational Research* p 721 By permission of The Macmillan Company publishers

[60] From W S Monroe editor, *Encyclopedia of Educational Research*, p 722 By permission of The Macmillan Company publishers

plementary interpretation is necessary The needed additional techniques for interpretation give rise to a whole set of new problems Besides being a technique which is hard to learn and long in learning, it is difficult to handle, once learned Even when the interviewer is skilled, some cases require a whole series of interviews distributed over a considerable period of time each interview having meaning only in relation to the entire series after supplementary study

The advantages of the psychiatric interview are equally clear it is still the only workable way for getting at the expression of those specific factors in child behavior which would otherwise remain unexpressed and obscured, it is the only way to create the rapport between child and interviewer which is necessary to obtain desired information, the rapport developed may be useful later in the educational guidance of the child Since the development of both positive and negative character traits includes factors which belong in this unexpressed or unconscious material the psychiatric interview method has become an important aid in guidance, education, and particularly in reeducational therapy

Self-appraisal by students themselves is sometimes a valuable procedure The pupil questionnaire given below was used for self diagnosis by pupils and as a source of information to guide teaching procedures in the public schools of Hamtramck, Michigan [61]

This questionnaire has been made for the purpose of finding out why more students do not take part in class discussions If we are able to find out the reasons we may be better able to help students develop the ability to express themselves in the presence of others The survey will be useless *if you do not answer truthfully*

I How often do you take part in class discussions? Check one word only

a Always *b* Frequently
c Seldom *d* Never

II If you seldom or never take part in class discussions check the reason or reasons for not doing so

1 I am not thoroughly prepared
2 I am afraid to talk in front of large groups of people
3 I am afraid the teacher will criticize me
4 I am afraid the class will criticize or laugh at me
5 I am not interested enough in the class to bother taking part
6 I think it is foolish to take part in discussion when I can pass the course without doing so
7 The class is so disorderly and noisy that it is useless to try to take part in a discussion
8 I am too lazy

Add other reasons not listed above

III If you take part in the discussion frequently check the following reasons for doing so

1 I take part in the discussion frequently so I will get a better mark
2 I take part in discussion because I like to express my ideas
3 I take part in class discussion because I think it helps others to hear my ideas
4 I take part in the discussion because I believe that everyone has something worth while to contribute and that if I do my share others will do theirs

Add any other reasons

[61] Quoted in *Learning the Ways of Democracy*, A Report of the Educational Policies Commission (Washington, D C , National Education Association 1940), p 415

IV Do you feel that small group discussions help you to understand the problems? Yes No

V Whom would you rather have conduct the discussion? Teacher Chairman

f Laboratory and clinical methods When a more precise analysis than can be secured by ordinary tests and diagnostic procedures is desired, the systematic, exact techniques of the laboratory or psychological clinic may be employed Numerous easily administered laboratory tests have been devised The Betts Telebinocular Tests[80] for example are very valuable devices for measuring visual and auditory factors essential to success in reading They include tests of visual and auditory readiness and visual sensation and perception Special apparatus easily manipulated by teachers is needed to give these tests The Monroe Reading Aptitude Tests[81] measure auditory memory, articulation, language control, and lateral dominance These are individual tests, also easily administered

When a permanent record of a pupil's performance is wanted, the examiner can use the Kymograph, the ophthalmograph, the motion-picture camera, the dictaphone, or a combination of the voice and motion-picture methods Such records often reveal small but important symptoms that ordinary observation does not detect These records make possible repeated studies of the same performance and more precise analysis of characteristics of behavior than can be obtained by other methods The valuable contributions of the laboratory study of eye movements to the improvement of reading are an excellent example of the ways in which exact clinical procedures have affected instruction Though at present the use of laboratory methods is largely limited to clinics and child guidance centers in universities and laboratories it is apparent that these services will be made increasingly available for all schools

Buswell has summarized as follows the value of the laboratory approach in the diagnosis of learning difficulties[84]

The essential prerequisite of good diagnosis is a penetrating analysis of the form of behavior being studied As in medicine so in education good diagnosis waits upon the identification of specific diagnostic symptoms The discovery of these symptoms ordinarily is not made by crude observation The refinement of technique made possible by laboratory instruments gives the laboratory a peculiar advantage in contributing to the techniques of diagnosis The function of the laboratory, as the writer sees it is primarily that of making the original analyses of behavior under conditions so rigidly controlled that significant symptoms may be isolated and described Once these significant symptoms are identified the problem is to simplify their application, as far as that can be done, or to derive from highly technical studies, where necessary the general patterns

[80] Meadeville Pa Keystone View Company 1931

[81] Boston Houghton Mifflin Company 1935

[84] G T Buswell in *Educational Diagnosis, Thirty Fourth Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co 1935) pp 166 167

of educational treatment that are beneficial The contribution of the laboratory will be in proportion to its insight in developing means for identifying significant symptoms that the teacher can use in discovering specific causes of difficulty in learning

The number of educational laboratories in America where equipment and trained personnel are available for making genuine contributions to educational diagnoses is still regrettably small It is doubtful whether as many as 5 per cent of the institutions for the training of teachers have anything that could be reasonably classified as a research laboratory for making contributions of the sort described in this paper The situation is not due primarily to the expense of carrying on laboratory work although that is a considerable item It is due chiefly to the fact that the profession at large has not understood the function of the psychological laboratory in contributing to educational methodology and diagnosis and has reasoned that because public schools cannot institute these laboratories in their own set up therefore the laboratory is a somewhat foreign and impractical agency Psychological laboratories for making detailed analytical studies certainly can be available in first class institutions for the preparation of teachers and in those city school systems where the school board is willing to support an adequate bureau of research In terms of long-time fundamental contributions to education the psychological laboratory occupies a strategic position If a somewhat greater proportion of the resources and energy of the educational profession could be devoted to basic and fundamental studies, the techniques of diagnosis available to the practical teachers and administrators might be very much increased

g Analysis of available records School and community records contain a wealth of information of value in making a diagnosis of causes of learning difficulty

An analysis of the pupils record of progress on practice tests in reading, arithmetic, spelling, and handwriting serves as a very effective basis of guidance If the record shows improvement, in most cases further diagnosis is not necessary If the record shows that no progress is being made or that there is even a loss in ability, steps must be taken to discover the causes of the condition Loss in ability may be due to some fault that is undermining the basic skills, to indifference, or to lack of effort

In some cases a record of the way the pupil spends his time in and out of school reveals valuable information This record may be compiled either by the pupil or by the examiner Assuming that the report is a true one, such facts are revealed as that the pupil has no systematic study program, that he does not begin work promptly that he wastes much time, that he spends an excessive amount of time on some subject, and other evidence of the unwise use of time available for study

h Cumulative records Large numbers of school systems use cumulative record systems for recording information about pupils The systems vary from simple record cards containing only a few items to large folders on which numerous facts are recorded and which at the same time serve as containers of informal current reports about the activities of the learner An analysis by Segel of cumulative records used in 177

school systems showed wide variation in the items the forms included *His findings are given in the table below*

FREQUENCY OF OCCURRENCE IN PERCENTAGES OF EACH ITEM ON RECORDS STUDIED * (177 SCHOOL SYSTEMS)

Item	*Elementary (111 records)*	*Junior High (87 records)*	*Senior High (136 records)*
Scholarship (marks)	96	100	100
School progress	80	92	79
Attendance	86	85	77
Entrance and withdrawal	71	86	79
Home conditions and family history	70	71	69
Intelligence test results	58	77	71
Social and character ratings	73	71	63
Health	63	64	56
Space for notes	58	63	57
Achievement test results	51	56	49
Extracurricular activities	19	64	63
Vocational and educational plans	17	45	11
Residence record	38	26	21
College or vocation entered after leaving school	15	31	33
Special abilities	14	23	16
Photograph	7	23	16
Out of school employment	5	20	18

* D Segel "Nature and Use of the Cumulative Record" Bulletin No 1 (Washington D C United States Office of Education 1938) p 6

The record forms in use have often been developed by state and city school systems Several have been issued by commercial publishing houses Many of the forms reflect the practices of the traditional school but there is clear evidence in many cases of modern developments The type of record to be used should take into consideration both the needs and the objectives of the school and the kinds of objective evidence which support the items it includes The Progressive Education Association has been investigating the types of records an ideal system of individual records should contain The following items are recommended [60]

1 *Personal pattern of goals* Since the school exists in some measure to help achieve the goals he (the pupil) sets for himself and to lead him to formulate even clearer, more consistent more attainable and more socially valuable goals it is important to ascertain what these goals are and to record progress toward them This requires a carefully planned conference technique in which the counselor discusses with the pupil such areas of goals as his life work school work school life home and friends sports hobbies the arts, reading and other recreational activities ' The pupil is to write out at intervals of perhaps a week or a month the goals in which he is interested and his success in attaining them

[60] P B Diederich Evaluation Records *Educational Method* Vol 15 (May 1936) pp 442 446

2 *Records of significant experiences* To be written out by pupil at irregular intervals
3 *Reading records* A record of the free reading which is a good index of intellectual maturity, must be interpreted on basis of type and quantity of material
4 *Records of cultural experience* Attendance at plays, concerts, listening periods on radio etc
5 *Records of creative expression* Diederich is not certain about the way in which this should be reported He recommends that teachers experiment He suggests that some common elements might be names of pupil and teacher, the date, the name title or subject of the creative product the medium of materials, the approximate number of hours of work represented, statement by the pupil of the purpose or central idea of his product what he learned in creating it and how successful it was in achieving his purposes An interpretation by the teacher should be included
6 *Anecdotal records of pupils, and interpretation by the teacher*
7 *Records of conferences*
8 *Record of excuses and explanations*
9 *Record of tests and examinations, with an interpretation by the teacher*
10 *Health and family history*
11 *Oral English diagnosis* A diagnosis of the pupil's pronunciation enunciation quality of voice, diction, usage, force, etc, without knowledge of pupil To be used in subsequent work
12 *Minutes of student affairs*
13 *Personality ratings and descriptions*
14 *Questionnaires* These include all interest and personal questionnaires pupils are asked to fill in Should be interpreted and filed in the pupil's folder
15 *Records of courses and activities*
16 *Administrative records*

At the close of this list of recommended items Diederich adds 'It is not suggested that any school attempt to install all these forms of records at once They are only intended to present alternative possibilities among which schools may choose, and to illustrate the richness and variety of types of evidence which are available for the evaluation of even more tangible outcomes of progressive education if schools are willing to develop, collect, and interpret them

In recent years many schools have greatly extended the information included in their pupil records in order to have a sound basis of guidance Such items as the following indicate some of the trends

1 Records of interests abilities and achievements in special areas such as art, music hobby clubs and athletics
2 Records of vocation experiences travel and employment
3 Educational and vocational plans at various stages of maturity
4 Information about personality traits
5 Case histories of pupils evidencing serious social, emotional, and educational maladjustment
6 Anecdotal records of significant behavior
7 Records of contributions to life of the school and participation in student and community activities

For a detailed analysis of present day record forms the reader is referred to the following

National Society for the Study of Education, *Thirty Seventh Yearbook, Guidance in Educational Institutions* (Bloomington Ill, Public School Publishing Co, 1938) Part I contains an excellent discussion of various kinds of records and their use in guidance

Reed, G M, and Segel D 'Minimum Essentials of the Individual Inventory in Guidance Vocational Division Bulletin No 202, Occupational Information and Guidance Series, No 2 (Washington D C, United States Office of Education 1940)

Segel D 'Nature and Use of the Cumulative Record' Bulletin No 3 (Washington, D C, United States Office of Education 1938) Contains a wealth of helpful material on the nature and use of the cumulative record

Outline of a typical diagnostic testing program The value of standardized procedures in making diagnostic studies is clearly revealed by an analysis of the contents of a complete diagnostic testing program in reading devised by Gates Standard tests for each of the following list of items are described in his book *The Improvement of Reading* [66]

I Tests and Diagnoses of Reading Attainments
  A Word recognition
  B Sentence reading
  C Silent paragraph reading—various types examined separately for
    1 Speed
    2 Accuracy
    3 Level or power
  D Oral reading
II Techniques of Reading Context
  A Objective devices and observation of use of context clues word form clues phonetic devices etc in oral reading
III Techniques of Working out Recognition and Pronunciation of Isolated Words
  A Objective records and observations of methods of attack upon unfamiliar words
IV Perceptual Orientation and Directional Habits in Reading Context and Isolated Words
  A Objective records and observations of reversal tendencies omissions of words, failures to observe various parts of words dependence on general configuration etc
V Inventory of Visual Perception Techniques Tests or examinations for
  A Ability to work out phonogram combinations
  B Recognition of various types of word elements as
    1 Initial vowel syllables
    2 Initial consonant syllables
    3 Vowel consonant phonograms
    4 Vowel phonograms
    5 Consonant vowel phonograms

[66] Arthur I Gates *The Improvement of Reading* (New York The Macmillan Company, 1935) pp 18 20 This book describes in detail the techniques of giving the Gates Reading Diagnosis Tests published by Bureau of Publications Teachers College, Columbia University New York

C Ability to blend given letters and phonograms into words
D Ability to sound individual vowels
E Ability to name individual letters

VI Inventory of Auditory Perception Techniques Tests or examinations for
A Ability to spell spoken words and techniques used
B Ability to write words as spelled
C Ability to blend letter sounds into words
D Ability to name letters when sound is given
E Ability to give words with a prescribed initial sound
F Ability to give words with a prescribed final sound

VII Various Constitutional and Psychological Factors
A Visual perception speed and accuracy of visual recognition and discrimination of various materials
B Vision tests of visual acuity eye dominance muscular coordination etc
C Auditory acuity and discrimination
D General intelligence
E Memory span
F Associate learning
G Muscular coordination handedness, relation of dominant eye and dominant hand etc
H Emotional stability etc

VIII Educational Background and Environmental Influences
A Home conditions language spoken attitude toward reading difficulty etc
B School conditions, educational progress, methods of teaching
C Personal relationships child parent parent teacher, teacher child pupil's attitude toward school and reading, brothers and sisters etc

IX Motivation reading viewed in its relation to desires thwartings, purposes

Gates points out that this program emphasizes the testing and direct observation of the techniques used by the pupil in various reading and word study situations and the relations of the pupil to other persons concerned with his difficulties Motivation is stressed because improvement depends on the ability of the teacher to secure the cooperation of the learner, a more or less perplexed personality Many of the instruments in Gates inventory are designed to measure and to diagnose ability at the same time Each one diagnoses one of the essential reading skills The series of tests was designed primarily to lead to the application of appropriate forms of remedial instruction Measurement diagnosis, and remedial teaching are therefore intimately related

The necessity of using informal diagnostic procedure Standard procedures for diagnosing many educational outcomes are lacking at the present time The teachers however, should be encouraged to devise methods that may be helpful in analyzing and evaluating the extent to which desirable objectives are being achieved Procedures similar to those that have been standardized for various fields may serve as models The best known of these are the following

DURRELL, D D Analysis of Reading Difficulty (Yonkers-on-Hudson, N Y, World Book Company, 1937)

MONROE, Marion, Diagnostic Reading Tests (Chicago, C H Stoelting Co)

WITTY P, Diagnosis of Reading Difficulty (Evanston, Ill Psychological Clinic, Northwestern University, undated)

Gates-Russell Spelling Diagnosis Tests (New York Bureau of Publications, Teachers College, Columbia University)

Measuring and Practice in Arithmetic (Philadelphia J C Winston Co) This series of arithmetic workbooks contains a complete series of diagnostic tests and readiness tests suitable for diagnostic purposes They are designed for use in grades 2 7

An illustrative diagnostic examination procedure The general procedure to follow in selecting pupils for diagnostic study and the method of conducting a detailed examination are similar for all areas of learning Although in serious cases it is desirable to make use of special apparatus and standardized materials, the teacher can in many instances make a fairly adequate diagnosis by using materials available in textbooks or devise simple home-made devices The following statement of procedures to use in arithmetic diagnosis describes a general plan of attack [87]

1 The teacher should give a survey test to secure an initial picture as to the status of the class as a whole

2 The teacher should make a careful analysis of the work on the test to locate obvious deficiencies or the types of exercises most frequently solved incorrectly by the class as a whole

3 The teacher should then select for careful study those pupils whose work was considerably below the standard in one or more of the processes Usually not more than 10 per cent of the pupils in a class will need much study The class should be given the ordinary assignment of work to be done at their seats so that all may be profitably occupied

4 After the class has begun to work on the assignment one pupil who has been selected for special study should be called to the teacher's desk or to a table conveniently located in the room The pupil should be told that the purpose of the teacher is to help him to determine the cause and nature of his arithmetic difficulties, and he should be encouraged to assume a cooperative attitude in the undertaking The teacher should think of his part of the examination as being like that of a physician who is making a clinical diagnosis of the cause of the illness of an individual The purpose of the diagnosis by the teacher should be the location of faulty methods of work lack of knowledge on the part of the pupil, and other possible causes of inefficiency of work At this step the teacher should not attempt to remedy the situation by teaching correct procedures

5 The teacher should next select a standardized diagnostic test in the process to be investigated such as the Buswell John [88] or Brueckner [89] tests

[87] L J Brueckner and E O Melby, *Diagnostic and Remedial Teaching* (Boston Houghton Mifflin Company, 1931), pp 212 214

[88] Buswell John Diagnostic Tests for Fundamental Processes in Arithmetic (Individual Test) (Bloomington Ill Public School Publishing Co 1925) A test for psychological analysis of arithmetical errors

[89] Brueckner Diagnostic Test in Whole Numbers, Fractions and Decimals (Manuals and Record Forms) (Minneapolis Minn, Educational Test Bureau, 1929)

or, if they are not available, should use some similar set of examples prepared for the purpose Usually not more than one process at a time should be studied to avoid fatigue on the part of the pupil

6 The teacher should explain to the pupil that he will make it easier to diagnose his difficulties if he will do his work aloud so that the teacher may observe his procedure The teacher should illustrate the method by working one or two typical examples Pupils readily respond to these directions and demonstrations especially if the teacher has created the right attitude and if the examination is conducted in a friendly helpful spirit

7 As the pupil works, the teacher should make notes of the types of faults that are discovered Such a record is facilitated by the use of the record blanks that are prepared on certain of the standard diagnostic tests These blanks contain lists of the most common types of faults revealed by extended clinical studies of the work of pupils deficient in arithmetic It is obvious that the teacher must have a first hand appreciation of the various kinds of errors that may be discovered and of their symptoms Sometimes the pupils stop in the middle of an example and apparently is blocked by some difficulty By careful questioning the teacher should make an effort to get the pupil to tell what his mental processes are during the period of apparent inactivity While the method of securing the pupil's testimony as to his mental processes may not be a wholly reliable one due to his inability to describe them accurately nevertheless in observing teacher with insight can usually secure quite a vivid picture of what mental activity takes place The length of the time required for a diagnosis will of course vary according to the extent and nature of the faults discovered in the pupil's work The average time required for a single process is between fifteen and thirty minutes

8 When the work of the test has been completed, the teacher should carefully analyze the notes taken during the examination and summarize the findings of the diagnosis These may be recorded on the standardized blank, on the pages of a note-book in which records of a diagnosis are kept or may be filed in some other convenient form for reference

9 The necessary reteaching and remedial work should then be undertaken in the light of the findings of the diagnosis

Functions of psychological specialists Though the teacher and supervisor can deal fairly effectively with many problem cases, it is being recognized that they often lack the specialized training essential for the diagnosis and treatment of cases that present severe or unusual difficulties For this reason most large school systems now provide the services of bureaus of research, psychological and guidance clinics, or departments of child study with experts in charge In some states there are traveling clinics that supply the services that small places cannot afford These experts cooperate with teachers and supervisors in the interests of pupil welfare Hildreth made a study of the functions of specialists engaged in various kinds of psychological service in the schools of this country She also analyzed reports in professional literature to find statements of actual as well as theoretical functions of these specialists both in educational institutions and in public school practice From these two sources

the following list of functions of specialists in psychological service was compiled [70]

A Measurement and Statistics
1 The selection and administration of standardized intelligence and achievement tests (This function is usually shared with teachers and administrators)
2 The administration of school surveys of the mental capacity and achievement of pupils
3 The use of rating scales and questionnaires for obtaining additional information about the mental traits of pupils
4 The construction of tests and rating scales for both service and research functions
5 Teacher training in use of psychological techniques
6 The use of suitable statistical procedures in studying and reporting psychological data

B Study and Guidance of Individual Pupils
7 The identification of exceptional pupils—the mentally subnormal and the gifted the unstable and the handicapped
8 The educational guidance and reeducation of exceptional children including in some cases the organization and supervision of special classes and the assignment of pupils to special classes
9 The study of exceptional children through interview and observation
10 Differential diagnosis of the difficulties presented by problem pupils (This may include the organization and direction of clinical case study)
11 The diagnosis of pupils deficient in the skill subjects of the school curriculum studies of pupils deficient in reading, spelling of the techniques of arithmetic or handwriting and of pupils with language handicaps and the like
12 Educational counsel and guidance for individual pupils
13 Vocational counseling for individual pupils

C Assistance in Administration and Supervision
14 The classification and grade placement of pupils (This function usually involves recommendations to principals or educational directors rather than responsibility for the actual placement of pupils in certain grades or the actual sectioning of groups of pupils)
15 Improvement of the marking system
16 The organization of a record-keeping system for the department of research or the psychologist's office the construction of record cards for the preservation of pupil records of mental development and achievement cooperation with administrators in devising record systems for the school
17 Reporting in most suitable form to school administrators, the board of education patrons of the school, and the general public the findings resulting from psychological service, and carrying on publicity work where it is needed for expansion of the activities described
18 Organizing psychological service in the larger schools so as to provide for the entire educational system a clearing bureau to which may be brought problems connected with the foregoing functions

[70] From Gertrude H Hildreth *Psychological Service for School Problems* (Yonkers on Hudson N Y World Book Company, 1930) pp 23 26

19 Maintaining files of test materials, instructional materials, and professional literature for the general use of the school staff

D Assistance in Instruction

20 The interpretation of the results of measurement for improvement of instruction and pupil adjustment

21 Remedial work in connection with deficiencies in the skill or tool subjects

22 Diagnostic and remedial work with speech defectives

24 Assistance to teachers in problems of instruction, including the choice of suitable drill materials for specific purposes the use of check tests in skill subjects, and the use of graphic devices for indicating pupil progress the improvement of teacher checking and observation of pupil achievement

24 The investigation and improvement of pupil study and work habits

25 Curriculum construction with particular reference to age and grade placement of instructional materials and provision for individual differences in achievement

L Research

26 Conducting research bearing directly or indirectly on school problems (This research is undertaken for the solution of some pressing problem brought by a teacher or it is directed toward the solution of a problem affecting teachers generally)

F Auxiliary Functions

27 Education of parents with reference to educational problems affecting child welfare the organization and direction of parent study groups

28 The establishment of contacts between the home and the school (This function may be performed in conjunction with or independently of the function of parent education)

29 The establishment of contacts with private and state educational agencies and the social agencies of the community

A review of this list of functions will make clear the kinds of services which can be rendered by these special agencies Their aim should be to give assistance in the study and solution of all educational problems and to help to make more effective the applications by classroom teachers of the findings of educational science One of their particular aims should be the diagnostic study of pupils who are maladjusted and the suggestion of feasible means of bringing about an improvement

In many smaller places the plan of having individual teachers take special training in diagnosis in particular fields is followed These teachers then assist others in diagnosing difficult cases In some localities several systems engage the services of specialists on a part-time basis Excellent work is being done by clinics in universities and other teacher-training institutions where cases referred by schools in neighboring communities are studied Even if special clinical facilities are not available, the staff of a school system should make every effort to discover and utilize available means of determining the cause of difficulty for pupils who are not making satisfactory progress or who reveal unwholesome, undesirable character and personality traits

The training essential for expert service in diagnosis and remedial teaching Some of the major training requirements for expert service in diagnostic and remedial instruction in any field are illustrated by the following statement of requirements for reading as summarized by Gates [71]

1 Thorough understanding of the reading process and of the steps involved in it
2 Thorough understanding of the various reading methods devices books and materials classroom practice and apparatus now in use in normal classroom instruction and also in various reading clinics and similar organizations concerned with reading disability
3 Keen critical ability to appraise the techniques of the teacher either from observing her at work or from records or reports of her work
4 Skill in teaching demonstrating and guiding the pupil in acquiring the techniques of reading
5 Familiarity with child psychology and child development and skill in handling pupils as persons in motivating them and encouraging effort
6 Skill in employing the tests and examinations used in analyzing reading disability
7 Knowledge of the principles underlying the test results and other diagnostic data (For example properly to interpret the data concerning ocular defects, the specialist should know the underlying psychology and physiology of vision)
8 Sufficient knowledge of the concepts and practices of other professional specialties such as clinical psychology psychiatry endocrinology etc to recognize symptoms requiring the attention of specialists in these fields

Sources of description of case studies The real significance of educational diagnosis can only be grasped by the study of reports of cases in which are assembled all of the data that bear on them Limitations of space here do not permit at this point the presentation of any detailed reports of case histories describing methods and findings of diagnostic procedures in the several fields of the curriculum For the convenience of the reader however, there is given at the end of this chapter a classified list of sources in which detailed procedures and findings for numerous cases are described The reader is referred to this source of materials for help

SECTION 4

PRESENTING THE RESULTS OF DIAGNOSTIC STUDY

Reporting the results of diagnostic study When intensive studies are made of individual cases detailed records of the findings should be filed for future reference Excellent case study record forms are available Brueckner [72] and Buswell [73] have prepared record blanks on which may be recorded the kinds of faults in arithmetic that are revealed by diag-

[71] Arthur I Gates in *The Measurement and Evaluation of Achievement in Reading*, *Thirty Sixth Yearbook* of the National Society for the Study of Education (Bloomington, Ill Public School Publishing Co 1937) p 412

[72] Minneapolis Minn Educational Test Bureau

[73] Yonkers on Hudson N Y , World Book Company, 1925

nostic studies These blanks contain the most common faults that have been found in the work of large numbers of pupils A part of the record blank for the Brueckner Diagnostic Test in Fractions is given below

INDIVIDUAL DIAGNOSTIC RECORD SHEET—MULTIPLICATION

Diagnosis	Summary	Diagnosis	Summary
I Computation Errors		III Reduction to Lowest Terms	
a Division		a Does not reduce	
b Multiplication		b Divides denominator by numerator	
"1 Lack of Comprehension of Process		c Divides numerator and denominator by different numbers	
a Inverts multiplicand		IV Omitted	
b Denominator not expressed in product		V Changing Improper Fractions to Mixed Numbers	
c Numerators added denominators multiplied		VI Errors in Copying	
d Numerators multiplied denominators added		VII Changing Mixed Numbers to Improper Fractions	
e In multiplying whole number by fraction multiplies whole number by denominator and adds numerator to product		VIII Difficulties in Cancellation	
		IX Other Difficulties	

First indicate by number opposite each row the types of errors made on each example that was missed For example Ia means that the pupil made errors in division

Then summarize under 'Summary' the total number of times each difficulty was found

	Examples				
Row	1	2	3	4	5
I					
II					
III					
IV					
V					
VI					
VII					
VIII					
IX					

SAMPLE FROM BRUECKNER DIAGNOSTIC TEST IN FRACTIONS

Used by permission of the Educational Test Bureau Minneapolis Minn

Much more detailed forms of compiling a wider variety of information about problem cases valuable in making a diagnosis in various fields have been devised A case-study record for reading devised by Witty for use in a psychological clinic consists of seven forms The following information is gathered about each case [74]

[74] P Witty, Evanston, Ill, Psychological Clinic Northwestern University

Form I	Results of Standardized Tests
Form II	Physiological Functions (vision audition, perception, dominance)
Form III	Pupil Report of Interests and Reading
Form IV	Pupil Report of Handedness and Laterality
Form V	Trait Rating Scale for Children (Teacher rating)
Form VI	Teacher's Observations of Pupil and Home
Form VII	Physical and Medical Data

Synthesis and analysis of diagnostic findings After the breaking down and analysis of the student's need for assistance and development have been completed and the contributory factors have been examined, there should be a discriminatory consideration of the information assembled A synthesis should then be made of the most significant data bearing on the case in such a way that the causal relations and clinical meanings become evident Several alternative steps or solutions may then open up which should be considered by all concerned with the welfare of the individual, including himself The treatment that is most likely to be effective should be selected and put into operation Subsequently a reevaluation should be made of the situation to discover the nature of the changes produced in terms of pupil growth and welfare so as to determine the correctness of the diagnosis and treatment and to determine future needs The details of improvement programs will be discussed in Chapter XI

Importance of cumulative records Personnel records containing essential data about the pupil and his progress should be available in the school These records should be systematically filed and should contain accurate up-to-date information The valuable data concerning the results of tests medical and clinical examinations, diagnostic studies, the participation of the pupil in the activities of the school, and so on can readily be placed on cumulative record cards These cards can be examined by the classroom teacher at any time and will also serve as a helpful basis of guidance at subsequent levels of the school

There has been little agreement as to the kinds of information that should be placed on school records Heck[75] compiled a "universal list of items for school records," reproduced on pages 317-318 No item was included unless it was rated as essential by a group of sixy-two judges

A more recent analysis by Segel of records used in 177 school systems showed variations in the items included Segel's findings are summarized in the table on page 306 There have been published a number of well-planned record systems which may be adapted in whole or in part by any school The following sets have a high degree of merit

AYER, F *Articulated Child Accounting Series* (Austin Tex Von Boeckmann-Jones Co)

Engelhardt Melby Complete School Record System (Minneapolis, Minn, Educational Test Bureau, 1928)

[75] A O Heck *Administration of Pupil Personnel* (Boston, Ginn and Company 1929) p 234

HECK, A O, and REEDER, W G *The Uniform School Accounting System* (Bloomington, Ill, Public School Publishing Co 1936)

Another complete system of record and report forms has been devised by Flory and Webb They suggest a cumulative form that should be very helpful [76]

UNIVERSAL LIST OF ITEMS FOR SCHOOL RECORDS *

Names of Items	*Names of Items*
A Personal History	*a* Name of school
1 Pupil	*b* Date of entering
a Name	*c* Grade child is in
b Sex	*e* Name of teacher
c Race	*n* Date of school term
2 Birth of pupil	*gg* Name of course
a Date	8 Length of term
b Place	*a* Number of days
3 Age of pupil	*c* Actual number of days taught
a Age without definition	9 Administrative
b Age as of September 1	*a* Date record made out
4 Address of pupil	
a Present address	J School Accomplishments
c Telephone number at present	1 Ratings
	b Scholarship
B Personal Family History and Home Life	*g* Conduct or deportment
1 Parents or guardian	*i* Effort
a Name	*m* Health
b Residence	*s* Credit received and not received
c Residence telephone	*a* Received during year or semester
d Occupation	*c* Total received for high school course
G School History	3 Graduation or promotion
1 Admission	*a* Date of graduation or promotion
a First entered school where	*b* Name of school
b Date entered as a beginner	4 Standardized tests
2 School previously attended	*a* Name of tests
a Name	*c* Test scores
b Grade	*d* Class score
3 Left school	*e* Standard score
a Date	*f* Date given
b Cause	*g* IQ
c Destination	*h* MA
5 Transfers	
a Date	L Medical History
b To what school	1 Diseases child has had
6 Progress	*b* Diphtheria
a Show grade year by year	*c* Scarlet fever
	f Smallpox
H School Data	*r* Tuberculosis
1 General	

* A O Heck *Administration of Pupil Personnel* (Boston Ginn and Company 1929), p 334

[76] Charles D Flory and J F Webb, 'Cumulative Records for Elementary Schools,' *Elementary School Journal* Vol 38 (December 1937), pp 278 290

UNIVERSAL LIST OF ITEMS FOR SCHOOL RECORDS—*(Continued)*

Names of Items	*Names of Items*
M Medical Examination	*a* Height of pupil
1 General considerations	*b* Weight of pupil
a Date of examination	
b Signature of examiner	N Attendance Record
c Physical defects	1 Absence
m Date of vaccination	*a* Number of times
2 Items considered in the examination	*b* Cause
a Adenoids	*c* Number of tardinesses
h Ears	*e* Absence unexcused
k Eyes	2 Attendance
r Heart	*a* Daily record of attendance
u Lungs	*b* Days present
v Nervous condition	3 Enrolment
w Teeth	*a* Total number in grade
ll Tuberculosis	*b* Total enrolment
4 Measurements taken	4 General questions
	k List of children in district according to census

GENERAL QUESTIONS TO INTRODUCE DISCUSSION

1 Is there any similarity between diagnosis in medicine and educational diagnosis?

2 State in your own words the steps to take in a diagnostic study Be ready to illustrate each step concretely

3 What are the possibilities of self-diagnosis by pupils?

4 To what extent do you hold the school responsible for outcomes in the fields of attitudes, appreciations, and character traits?

ORAL REPORT

1 Report on the techniques of diagnosis used in some area as given in one of the references in the bibliography

2 What provision is made for diagnosis in your schools?

3 Give examples or instances in which you think that one of the causes of difficulty discussed in this chapter was actually operative

4 What kinds of clinical apparatus are needed in diagnosis?

5 What diagnostic procedures can the teacher use? Give concrete illustrations of their application if possible

6 Two sets of questions which may be used to advantage here will be found in Burton, *The Guidance of Learning Activities* pages 463 464, 476 477

WRITTEN REPORT

1 Prepare written report showing in a systematic manner the various means and techniques of diagnosis used in some curriculum area discussed in the references

2 Make an actual case study and report the results to the class

3 Observe the work in some classroom and note the kinds of diagnostic procedures the teacher actually uses in instructing the pupils

4 Make an analysis of the causes of difficulty in some phase of a single curriculum area

5 Outline a plan for diagnosing unfavorable character traits

Suggested Readings

General

Brueckner, L J, and Melby, E O, *Diagnostic and Remedial Teaching* (Boston, Houghton Mifflin Company, 1931)

Conklin, Agnes M *Failures of Highly Intelligent Pupils A Study of Their Behavior*, Contributions to Education, No 792 (New York, Bureau of Publications, Teachers College Columbia University, 1940)

Fernald, Grace *Remedial Techniques in Basic School Subjects* (New York, McGraw-Hill Book Company Inc, 1943)

Greene H L Jorgensen A and Gerberich J R, *Measurement and Evaluation in the Elementary School* (New York Longmans Green & Co 1942)

National Society for the Study of Education *Thirty Fourth Yearbook Educational Diagnosis* (Bloomington Ill Public School Publishing Co 1935)

Remmers H H and Gagl, N L, *Educational Measurement and Evaluation* (New York, Harpers & Brothers 1943)

White House Conference on Child Health and Protection (New York, D Appleton Century Company Inc 1932)

Mental and Physical Development and Health

Anderson V V, *Psychiatry in Education* (New York Harpers & Brothers 1932)

Fenton, Norman, *Mental Hygiene in School Practice* (Stanford University Calif Stanford University Press, 1943)

Hildreth Gertrude *A Bibliography of Mental Tests and Rating Scales* (New York The Psychological Corporation, 1939)

Hollingsworth Leta S *Children Above 180 IQ* (Yonkers-on Hudson N Y, World Book Company 1942)

Holy T C and Walker G L *A Study of Health and Physical Education in the Columbus Public Schools* (Columbus Ohio Ohio State University 1942)

Jensen K H Electrical Activity of the Nervous System *Journal of Experimental Education* Vol 6 (December 1938), pp 243 282

Review of Educational Research Mental Hygiene and Health Education,' Vol 13 No 5 (December, 1943), pp 411 530, Education of Exceptional Children and Minority Groups Vol 14, No 3 (June 1944), 'Pupil Personnel Guidance and Counselling Vol 14 No 5 (December 1944) 'Psychological Tests and Their Uses,' Vol 14 No 1 (February 1944), pp 1-128

Stoddard George D *The Meaning of Intelligence* (New York The Macmillan Company 1943)

Tiegs E W and Katz, B, *Mental Hygiene in Education* (New York The Ronald Press Company 1941)

Witty P and others *Mental Hygiene in Education* (New York, Rinehart Company Inc, 1939)

Zachry, C B and Lighty, M *Emotion and Conduct in Adolescence* (New York, D Appleton Century Company, Inc, 1940)

Arithmetic and Mathematics

Breslich, E R, *The Teaching of Mathematics in the Secondary Schools* (Chicago, University of Chicago Press 1930)

Brueckner, L J, *Diagnostic and Remedial Teaching of Arithmetic* (Philadelphia, The John C Winston Co 1930)

Buswell, G T, and John, Lenore, *Diagnostic Studies in Arithmetic* (Chicago University of Chicago Press 1926)

Mathematics in General Education A report of the Committee on the Function of Mathematics in General Education Progressive Education Association (New York, D Appleton Century Company Inc 1940)

English and Related Subjects

National Society for the Study of Education, *Forty Third Yearbook Teaching Language in the Elementary School* (Chicago University of Chicago Press, 1944), Part II Ch 9

ORTON S T *Reading, Writing, and Speech Problems for Children* (New York, W W Norton & Company Inc 1937)

RUSSELL D *Characteristics of Good and Poor Spellers* Contributions to Education No 727 (New York Bureau of Publications Teachers College Columbia University 1937)

SPACHE G, "Spelling Disability Correlates *Journal of Educational Research*, Vol 34 (April, 1941), pp 561 567, Vol 35 (October 1941) pp 119-138

TRAVIS L L, *Speech Pathology* (New York, D Appleton Century Company Inc, 1934)

Reading

BETTS, E A *Diagnosis of Reading Disabilities* (Meadeville Pa, Keystone View Co, 1934)

DURRELL D D *The Diagnosis of Reading Disabilities* (Boston Houghton Mifflin Company 1935)

GATES Arthur I, *The Improvement of Reading* (Revised New York The Macmillan Company 1935)

HARRISON, M R, *Reading Readiness* (Revised edition Boston Houghton Mifflin Company 1939)

MONROE, Marion *Children Who Cannot Read* (Chicago University of Chicago Press 1932)

WITTY P and KOPEL D *Reading and the Educative Process* (Boston Ginn and Company 1939)

Social Studies

Department of Superintendence *Tenth Yearbook Character Education* (Washington D C National Education Association 1932) especially Chs 5 6

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VIII

Studying the Teacher Factors in Pupil Growth

In an earlier chapter it was pointed out that pupil growth and achievement were influenced by four groups of factors resident (1) in the pupil, (2) in the curriculum and objectives, (3) in the instruction, (4) in the materials of instruction and the sociophysical environment. The factors resident in the pupils were considered in the preceding chapter. It will be the purpose of this chapter to consider the factors resident in the teacher and to consider means of studying these factors.

As the reader thinks his way through what is to follow he must not lose sight of the ultimate goal of this discussion, which is to promote pupil growth through teacher growth. Much is to be said about data-gathering devices and their validity, the final purpose, however, is to lay the foundation for the improvement program discussed in Chapter XII—a foundation we propose to lay by helping teachers discover through the means here described, the particular respects in which their efforts may be improved, made more effective and the learning of pupils facilitated thereby.

SECTION 1

THE IMPORTANCE OF THE TEACHER IN THE TEACHING-LEARNING SITUATION

It would be difficult to overestimate the importance of the teacher in the teaching learning situation. He will determine in a large measure the pupil's choice of learning activities, his interest in his work, and the effectiveness of his application. His knowledge of his pupils, of his subject, and of the methods of learning and teaching, his skill in working with others, in handling pupils, in seeing and overcoming learning difficulties, his attitudes toward his pupils, toward teaching, and toward life in general, his interests, ideals, and aptitudes—all these are factors conditioning the learning of pupils. He will not merely furnish leadership in the more technical aspects of education, but he will set standards of behavior and conduct through his own conduct, attitudes, ideals, adjustments, and personal idiosyncrasies. It would be very difficult to

overestimate the teacher's importance in the teaching-learning situation Prescott expresses the same idea as follows [1]

> The teacher is the ultimate agent of education No matter what appears in the official courses of study it is he who sets the daily tasks for the pupils, or who helps them to develop a plan of work It is he who sanctions or condemns their habits their attitudes, their personality qualities If education is ever to have any genuine influence in shaping character, or in giving insight into life the teacher will be the agent who will carry this influence It is his philosophy of education put into practice which really matters

His rôle in the guidance of the learning activities of pupils is exceedingly important, and he has other equally significant functions and responsibilities the directing of extra-curricular activities, acting as a friend and counselor of pupils, participating as a member of a community that has many expectancies with reference to him How he meets these demands will determine in no small measure his success

SECTION 2

GENERAL METHODS OF DETERMINING GROWTH NEEDS OF TEACHERS

The improvement needs of teachers, and of staff members generally, may be derived through objective analysis and/or group judgment

The survey technique One of the commonest forms of objective analysis is the school survey Surveys may be made of the training, experience personal qualities, the academic and professional background of the staff, of instructional practices in terms either of principles of learning or of specific practices within a subject field or area of learning experience, or of any other aspect of the setting for learning Surveys may be confined to a small group of teachers to a grade level, to one building to one section of a system or may cover a city, a county or a state Surveys may be made by a staff of outside specialists, or self survey may be carried on by the local group Community participation is desirable in either case Surveys may be periodic or continuous Surveys may aim at securing an over all picture of general needs, or may be aimed at defining the specific needs of a given group A few illustrative procedures follow

Outline for the survey of a teaching staff Almost any good survey will provide illustrative materials showing the types of information ordinarily collected with reference to the teaching staff Because of the conditions under which school surveys are usually undertaken, it is customary to limit the information gathered to a rather short list of objective facts such as those relating to age and place of birth, the kinds and amounts of

[1] Daniel A Prescott The Training of Teachers *Rutgers University Bulletin*, Series IX No 8 (New Brunswick N J Rutgers University 1933) p 5

training, the kinds and amounts of experience, tenure and the like The *Evaluative Criteria* set up the following categories -

1 Personal qualifications
2 Instructional qualifications
3 Academic preparation
4 Professional preparation
5 Educational experience and service in the school
6 Non school experience

Outline for the survey of general instructional practices There are many times when the purpose is to secure a more limited picture of the general instructional practices in a given school or group of schools Many instruments have been devised for this purpose several of which are illustrated in Chapters VI, IX and X One illustration taken from the *Evaluative Criteria* suggests the type of items to be considered [3]

A Classroom activities
  1 The teacher's plans and activities
  2 Cooperation between pupils and teacher
B Use of community and environment
C Textbooks and other instructional materials
  1 Textbooks
  2 Other instructional materials
D Methods of appraisal

A number of specific standards are enumerated under each of the above categories The committee formulating these criteria suggested that the instructional program should be characterized by the following principles [4]

1 That goals or objectives be appropriate to the degree of development of pupils and in keeping with the purposes of the school
2 That the selection and use of types of teaching and learning materials and experiences be varied
3 That method and organization be adjusted to conditions and needs of pupils as a group and as individuals
4 That every legitimate means available be used in the evaluation of progress and quality of learning
5 That a personal relationship of confidence respect and helpfulness between teachers and pupils be maintained resulting in similar relationships between school and community
6 That there be provision for all desirable types of learning
7 That there be definite and adequate learning by the pupils as an outcome

An extract from the New York City experiment with the 'activity" curriculum will illustrate this general technique a little further

An excerpt taken from the criteria employed in a survey of the activity program in New York City In 1934 the Committee on Educational

[2] Cooperative Study of Secondary School Standards Committee *Evaluative Criteria* (1940 edition, Washington D C , 1939), pp 151 156
[3] *Ibid* , pp 157 160
[4] *Ibid* , p 157 See also Chapter IX in this volume

Problems of the New York Principals' Association voted to make the activity movement a major topic of study during the current school year In February, 1935, the Committee recommended a limited program which was started in 13 schools, in September, 1935, the program was extended to 70 schools In 1936 1937 an extensive program of evaluation was initiated in 9 activity and in 9 paired non-activity schools The testing was continued through 1938, 1939, and 1940 In 1938 the New York City Board of Education recommended that the superintendent of schools invite the State Education Department to make a survey of the experiment Plans for the survey were submitted to the superintendent in November, 1940, and completed in April, 1941 An excerpt from the criteria used in this survey is reproduced below [5]

1 *The extent of planning* With the teacher's guidance, children plan projects units of work, activities, and the daily schedule
3 *Origin of activity or work observed* Units projects and activities have their origin in the interests and needs of the children who with the teacher's guidance determine the objectives and desired outcomes
7 *Exercise of initiative* Through exercise of initiative children develop qualities of leadership
18 *Attention to social outcomes* Both teacher and children are alert to discover growth in the social behavior or conduct of the individual and the group
29 *Whole group enterprises and experiences* Children share experiences through the use of bulletin boards, home made movies, class or school newspapers assembly programs and other such enterprises
44 *Workshop like appearance* The room is arranged and equipped to facilitate many types of work
37 *Pupil participation* Children are eager to participate in the program in progress
41 *Leader group responsibility* Group insists on action and progress holding the leader responsible for the discharge of his functions
44 *Freedom of movement* Children move freely around the room to obtain and use materials and in the performance of tasks related to the work at hand
46 *Pupil pupil relations* Children's relations with one another are informal and natural marked by courteous socially desirable behavior
51 *Rapport between teacher and pupils* There is a fine understanding and working relation between pupils and teacher marked by an attitude of friendship and mutual respect
55 *Parent participation* Parents are given the opportunity to participate in the work of the school and to demonstrate a desire to be helpful

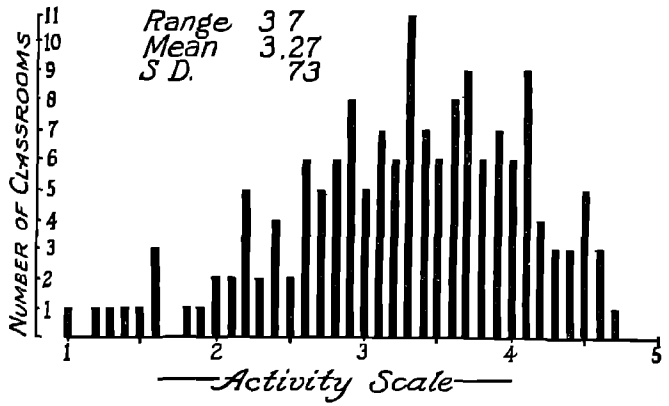
The scale from which this excerpt is taken is composed of 57 items each defined on a five step scale The 57 items were grouped into nine categories as follows

1 Pupil's participation in planning
2 Experiencing as a basis of learning

[5] J Cayce Morrison and others *The Activity Program* A Survey of the Curriculum Experiment with the Activity Program in the Elementary Schools of New York City, September 1941 (New York City Board of Education) pp 29 32

3 Keeping records and evaluating work done
4 The pupil's relation to content of instruction
5 Supplies and equipment
6 Physical properties and arrangement in classroom
7 Pupils activity in classroom and school
8 Intra school relationships
9 Relations of school to home and community

The amount of activity observed by the survey committee in 153 classrooms in 37 schools is shown in the graph below



THE AMOUNT OF ACTIVITY IN SELECTED CLASSROOMS OBSERVED BY THE ADVISORY COMMITTEE

The distribution on an activity scale ranging from 1 to 5 of 158 classrooms in 37 activity schools observed by members of the Advisory Committee from J Cayce Morrison and others *The Activity Program* A Survey of the Curriculum Experiment with the Activity Program in the Elementary Schools of New York City September 1931 (New York City Board of Education 1931)

The report continues with a detailed comparison of the amount of activity in activity and non activity schools

Very brief outline for preliminary analysis of activity within a given subject field Similar outlines for analyzing activity within a unified learning situation are included in the chapters referred to above Superintendent E W Wiltse York, Nebraska, in discussing techniques by which a school staff might identify strong and weak aspects of its reading program and define needed changes, lists the following ten questions that may be answered by "yes" or "no" [6]

[6] I W Wiltse in William S Gray and others *Cooperative Effort in Schools to Improve Reading*, Supplementary Educational Monographs (Chicago University of Chicago Press 1942) pp 87 93

1 Is there a written philosophy concerning the teaching of reading upon which all agree?
2 Have the goals for each grade and department been set up?
3 Does administration make a going program possible by (*a*) providing leadership, and (*b*) furnishing materials?
4 Is evaluation comprehensive or is it made in terms of aims of accomplishment?
5 Is there a program of reading readiness?
6 Is there a wide range of reading materials adapted to the varying interests and abilities of the pupils?
7 Are libraries attractive, well organized effectively catalogued, and administered to serve the reading needs of the school?
8 Does the program provide for remedial work?
9 Is any attempt made to provide clinical services for typical children?
10 Do students teachers, and the administrative staff work together with enthusiasm?

It will be noted that the attention is focused in these questions upon the more general aspects of the instructional program in reading

We have supplied in the immediately preceding materials two illustrations of the aspects of teaching that educationalists frequently consider in attempting to secure a general picture of the school, city, county, or state In the first example we attempted to illustrate the aspects of teaching considered in an over all general survey of instructional practices, and in the second, the aspects of teaching that one might consider in attempting to get an over all view of the instructional practices in a particular subject matter field

The group-judgment technique The use of group judgment based on careful honest thinking which uses all available facts is a reputable procedure Illustrations are scattered widely through practically all fields The procedure is valuable particularly when dealing with the more remote and general needs, when dealing with background needs, and when dealing with other needs which cannot easily be reduced to limited precise terms

Group judgments are valuable in this field when based upon extensive training and experience in the professional field The experiences of other individuals and groups, the summarized literature, and reported research should be utilized Synthesis of available material and careful judgment on given situations constitutes a reputable method of determining growth needs A number of excellent and widely used general statements are found in the literature and will be illustrated in the following section

SECTION 3

TYPICAL GROWTH NEEDS OF TEACHERS

From techniques such as those described above, many excellent statements of the needs of teachers have been derived Summary statements

typical of those derived from individual and group judgment survey techniques are given below

Teachers' needs indicated through a survey of research on instructional difficulties A large number of studies have been made to discover and define the difficulties that teachers experience in attempting to provide desirable conditions for learning An analysis of these will lead to definitions of specific needs A summary of 475 of these research studies covering reports from 12,372 teachers has been made by Hill as follows [7]

1	Difficulties in providing for individual differences among pupils	19*
2	Difficulties in teaching method	18
3	Difficulties of discipline, control social development of the pupil	17
4	Difficulties of motivation getting children interested, getting them to work	12
5	Difficulties in the direction of study	9
6	Difficulties in organizing and administering the classroom	8
7	Difficulties in selecting appropriate subject matter	6
8	Lack of time during the school day for all the things that need to be done	6
9	Difficulties in organization of materials	6
10	Difficulties in planning and making assignments	5
11	Difficulties in grading and promotion of pupils	5
12	Inadequacy of supplies and material	4
13	Difficulties in testing and evaluating	4
14	Personal difficulties of the teacher	1
15	Difficulties arising from conditions of work	3
16	Difficulties involved in diagnosing and correcting particular pupil difficulties	3
17	Difficulties in teaching reading	1
18	Difficulties in making plans for teaching	3
19	Difficulties in promoting desirable habits	2
20	Difficulties in securing study aids	2
21	Difficulty in securing pupil participation	2
22	Difficulty because pupils talk while others are reciting	2
23	Outside interruptions of class work	2
24	Miscellaneous problems mentioned in only one study	40**

* Number of studies in which difficulty was among the first six

** These were mostly specific problems Seven were difficulties in teaching this or that subject Others were rural school problems such as "only one pupil in grade" or "too many grades in one room"

An examination of the difficulties listed above reveals that they arise chiefly out of the teacher's responsibilities as a director of learning, they do not adequately illustrate the teacher's work as a friend and counselor of youth, as a director of extra-curricular activities, as a member of a school staff, and as a member of a community The report lists merely the difficulties of performance many of the improvement needs of teachers are likely to be found, however, in the background factors that condition performance The limited purpose of this summary prevents its use as a truly satisfactory illustration of the growth needs of teachers

[7] George E Hill, Teachers Instructional Difficulties A Review of Research, *Journal of Educational Research*, Vol 37 (April, 1944) pp 602 615

Accordingly, we turn to examples that more adequately present the broader and more exclusive needs of teachers

The growth needs of a particular school system stated in general terms The growth goals of the teachers of the Moultrie (Georgia) public schools were summarized as follows [8]

Teachers should grow

1 In social understanding
2 In understanding of child growth and development
3 In the ability to work democratically with others
4 In the ability to utilize community resources

The growth needs of teachers as stated by a teacher-training institution The next statement is chosen from a report by the Curriculum Committee of the School of Education of Syracuse University These statements were drawn with reference to the institutional education of teachers, but they are equally applicable to the in-service growth needs of teachers The objectives were as follows [9]

1 To gain a thorough acquaintance with boys and girls of secondary school age and to gain an understanding of the physiological sociological, and psychological factors determining their development
2 To formulate a philosophy of education in relation to adolescents and the society of which they are a part
3 To discover the nature of the various agencies which carry on the work of education in modern society the particular function of the school and its curriculum as a whole, and the place of the various subject fields in the total curriculum
4 To develop the art and science of teaching and to become familiar with and accustomed to the rôle of the teacher in the community and the administrative aspects of the school as well as in the classroom
5 To enter the profession of teaching with understanding of its status ethics organizations, major problems, and opportunities

The needs of teachers in the field of curriculum-making The needs of teachers fall into many areas MacKenzie has defined these needs in the field of curriculum-making as follows [10]

Teachers should be able

1 Alone or in cooperation with others, to guide boys and girls in attaining a balanced plan of living
2 To lead children and youth in finding solutions to their immediate difficulties and in relating them to the broader social problems
3 To guide children into much meaningful experience with the basic tools and methods of work

[8] Maurice E Troyer and C Robert Pace *Evaluation in Teacher Education* (Washington D C, American Council on Education, 1944), pp 284 285

[9] Helene W Hartley 'Developing a Curriculum for Professional Teacher Preparation *A Functional Program of Teacher Education*, As Developed at Syracuse University (Washington, D C, American Council on Education, 1941) pp 76 77

[10] Gordon N MacKenzie, 'The In Service Job," *Educational Leadership*, Vol 3 (October, 1945), pp 2 6

4 To provide leadership for boys and girls in planning and directing their own activities
5 To utilize the community as a laboratory
6 To work cooperatively with other teachers in the planning and execution of a unified educational program

The growth needs of teachers as summarized by the Commission on Teacher Education The following statement of the Commission is drawn in terms of qualities of the person and the mental prerequisites to teaching success [11]

1 *Respect for personality* It is of basic importance that teachers should be good specimens of our culture They should be devoted to the ideals that characterize the American people at their best They should serve those ideals effectively Thus teachers for our times should believe in freedom and the worth of each growing personality, in responsible citizenship and the worth of a genuine community and in reasoned action as the surest means of meeting our problems and improving our lives together
2 *Community Mindedness* Because communities recognize the powerful influence of teachers on young people they tend to be particularly concerned with the character of their views and general behavior
3 *Rational Behavior* Ability to deal rationally with personal and professional problems is to be sought for in teachers
4 *Skill in Cooperation* Because the work of teachers is characteristically carried on in vital social surroundings it is important that they should be skilled in collaborating with others in thinking choosing and acting in sensitive response to a total changing scene
5 *'General" Qualities Shade into the 'Professional'* Because teachers should be good specimens of the culture the qualities emphasized up to this point must never be overlooked in planning professional development A narrow person, a one sided person a starved person is ordinarily seriously handicapped so far as becoming or being a good teacher is concerned
6 *Increasing Knowledge* Well informed teachers are called for at every school level Scholarly resources are particularly important in our complex and changing times The subjects of the arts and letters of the natural and social sciences and of philosophy all bear on the needs of our society of our children and of the teachers themselves Teachers need vital and extended instruction in these subjects
7 *Skill in Mediating Knowledge* It is not enough, however for teachers merely to possess an expanding store of personal knowledge The teacher's job is to help *children* to learn, to use his own knowledge for the promotion of learning *in others*
8 *Friendliness with Children* Friendliness should describe the attitude of the teacher as well as the atmosphere of the school, but a friendliness that is wise and objective, not sentimental and uncritical
9 *Understanding Children* If the ends of democratic education are to be achieved, teachers must understand as much as possible about the purposes that animate young people, the needs to which they respond, and the various circumstances that condition their behavior This implies

[11] Karl W Bigelow and others *Teachers for Our Times A Statement of Purposes by the Commission on Teacher Education* (Washington D C, American Council on Education 1944), pp 154 173

both a grasp of general principles and also the ability to employ those principles artistically in dealing with particular youngsters

10 *Social Understanding and Behavior* It is professionally important that the teacher should have a more than ordinary understanding of his society, that he should fully share the deep underlying convictions that characterize it, that he should have some particular grasp of its problems trends, and possibilities he is the vital element in the school, the purpose of which is to ensure social perpetuation and progress He should know what he is about

11 *Good Citizenship in the School as Society* The school itself is made up of human beings—children, teachers, administrators—living and working together to common ends A teacher can scarcely be considered excellent who is not functioning as a good citizen of that school society

12 *Skill in Evaluation* Both the kind of school described as desirable for our country in the merging future, and the kind of teacher education suggested by the preceding discussion, would recognize the individual's share in planning his life and appraising its effectiveness Teachers certainly need to know at what they are aiming, and to check continually upon their accomplishment For this reason and also in order to be most helpful to others, they should understand the techniques of evaluation and be able to use them intelligently

13 *Faith in the Worth of Teaching* One quality essential to good teaching is a profound conviction of the worth of a teacher's work For this to exist the individual must have a sense of the greatness of his profession—of its significance for society (and) of its power to benefit boys and girls He must have no doubt that skilful teaching is essential to the preservation and improvement of our culture, to the strengthening and enlightening of every citizen

The needs of teachers summarized according to certain approaches employed in their study Our concern in the immediately preceding section was with the more common and/or general needs of teachers We wish now to consider the needs of teachers in a somewhat more detailed fashion from the point of view of the approaches commonly made to the study of teaching efficiency At least four different approaches, each with its own vocabulary, have been employed in the study and description of the improvement of teachers

1 *The mental prerequisite approach,* wherein the efficiency of the teacher is inferred from measures of essential knowledges, skills, attitudes ideals, appreciations, and so forth

2 *The qualities approach,* wherein the teacher's efficiency is inferred from measures of personal, social, emotional, and moral qualities commonly associated with teaching success

3. *The performance approach,* wherein the efficiency of the teacher is inferred from observation of her behavior and instructional procedures in the classroom

4 *The change in pupils approach,* wherein the efficiency of the teacher is inferred from measures of changes in pupil growth and achievement

The growth needs of teachers may be defined from any one or all of these four points of view To clarify these several approaches we turn next to some illustrative statements of the objectives of teacher educa

tion, each stated in terms of the approaches named above We shall summarize these goals of teacher education under four categories stated in question form (1) What are the mental prerequisites to teaching efficiency? (2) What qualities of the person are essential to teaching success? (3) What activities, behavior pattern, and performance should characterize the good teacher? and (4) What outcomes expressed in terms of pupil growth and pupil achievement should accrue from good teaching?

1 *What are the mental prerequisites to efficiency in teaching?* The mental prerequisites to teaching efficiency are usually given as a list of knowledges, skills, and attitudes A partial list of prerequisites illustrative of those most frequently suggested for efficiency in teaching is given below

1 Knowledge and Understanding
   a Of the child
   b Of the social order of which we are a part
   c Of the place and function of the school in the social structure
   d Of the subject matter
   e Of the processes and principles of learning and teaching
2 Skill in
   a Teacher pupil relations
   b Choosing learning experiences
   c Guiding the learning process
   d Problem solving
   e Use of community resources
   f Expression
3 Attitudes Interests Ideals and Appreciations
   a A liking for children
   b Sensitiveness to social problems and needs
   c Interest in teaching
   d Emotional balance
   e Social attitudes and adjustments

The reader will find many papers, rating scales, monographs bulletins and books with lists such as the one given above and in which teaching efficiency is discussed in terms like these—terms used not merely by generalists, but by parents and pupils as well, and by the teachers themselves Descriptions based on analyses like the example given above supply valuable background information for the improvement program and will be accepted as such

For fairly recent surveys of the research relating to the contributions of such prerequisites to teaching success, the reader is referred to the following

Review of Educational Research "Teacher Personnel, June 1937, 1940, 1943 1946

BARR A S, and others *The Measurement of Teaching Ability* (Madison Wis, Dembar Publications, Inc 1945)

BARR, A S and others, *The Prediction of Teaching Efficiency* (Madison, Wisconsin, Dembar Publications, Inc, 1946)

See also Chapters IX and X in the 1938 edition of this volume

2 *What are the qualities of the person essential to success in teaching?* Another approach to the study of teachers and teaching in common use concentrates attention upon the qualities of the person One of the most comprehensive summaries of the qualities essential to success in teaching was presented by Charters and Waples in their *Commonwealth Teacher-Training Study*,[12] made some years ago While much has happened in the period since the publication of this report, it is still a revealing source of information on this subject There are many other critical studies of the qualities essential to success in teaching Barr,[13] Mead [14] and

LIST OF TEACHERS TRAITS [15]

1 Adaptability
2 Attractiveness, personal appearance
3 Breadth of interest (interest in community interest in profession, interest in pupils)
4 Carefulness (accuracy, definiteness thoroughness)
5 Considerateness (appreciativeness courtesy kindliness, sympathy, tact unselfishness)
6 Cooperation (helpfulness loyalty)
7 Dependability (consistency)
8 Enthusiasm (alertness animation inspiration spontaneity)
9 Fluency
10 Forcefulness (courage, decisiveness, firmness independence purposefulness)
11 Good judgment (discretion foresight, insight intelligence)
12 Health
14 Honesty
13 Industry (patience perseverance)
15 Leadership (initiative self confidence)
16 Magnetism (approachability cheerfulness, optimism, pleasantness, sense of humor sociability, pleasing voice, wittiness)
17 Neatness (cleanliness)
18 Open mindedness
19 Originality (imaginativeness resourcefulness)
20 Progressiveness (ambition)
21 Promptness (dispatch punctuality)
22 Refinement (conventionality good taste modesty morality, simplicity)
23 Scholarship (intellectual curiosity)
24 Self control (calmness dignity poise reserve sobriety)
25 Thrift

[12] W W Charters and Douglas Waples *The Commonwealth Teacher Training Study* (Chicago University of Chicago Press 1929) pp 14 19 51 56

[13] A S Barr, *Characteristic Differences in the Teaching Performance of Good and Poor Teachers of the Social Studies* (Bloomington, Ill Public School Publishing Co 1929) 127 pp

[14] A R Mead, Qualities of Merit in Good and Poor Teachers,' *Journal of Educational Research*, Vol 20 (November 1929), pp 239 252

[15] Charters and Waples, *op cit*, p 67

REASONS FOR LIKING 'TEACHER A' BEST ARRANGED IN ORDER OF FREQUENCY OF MENTION AS REPORTED BY 3725 HIGH SCHOOL SENIORS*

Reasons for Liking 'Teacher A' Best	*Frequency of Mention*	*Rank*
Is helpful with school work explains lessons and assignments clearly and uses examples in teaching	1940	1
Cheerful happy good natured jolly has a sense of humor and can take a joke	1429	2
Human, friendly companionable one of us	1021	3
Interested in and understands pupils	937	4
Makes work interesting creates a desire to work makes class work a pleasure	805	5
Strict has control of the class commands respect	763	6
Impartial, shows no favoritism has no pets	695	7
Not cross crabby grouchy nagging or sarcastic	618	8
We learned the subject	538	9
A pleasing personality	504	10
Patient kindly sympathetic	485	11
Fair in marking and grading fair in giving examinations and tests	475	12
Fair and square in dealing with pupils, has good discipline	416	13
Requires that work be done properly and promptly makes you work	361	14
Considerate of pupils feelings in the presence of the class courteous makes you feel at ease	362	15
Knows the subject and knows how to put it over	357	16
Respects pupils opinions invites discussion in class	267	17
Not superior, aloof high hat does not pretend to know everything	216	18
Is reasonable not too strict or hard boiled	199	19
Assignments reasonable	191	20 5
Helpful with students personal problems including matters outside of class work	191	20 5
Dresses attractively appropriately neatly and in good taste	136	22
Young	121	23
Work well planned knows what class is to do	110	24
Enthusiastically interested in teaching	108	25
Gives students a fair chance to make up work	97	26
Home work assignments reasonable	96	27
Recognizes individual differences in ability	86	28
Frank straight from the shoulder, a straight shooter	78	29 5
Personally attractive good looking	78	29 5
Teaches more than the subject	71	31
Interested in school activities	68	32
Sticks to the subject	53	33
Modern	52	34
Sweet and gentle	50	35 5
Pleasing voice	50	35 5
Intelligent	42	37
Prompt and businesslike	41	38
Sincere	36	39
Knows more than the subject	32	40
Has pep	31	41
Uses good judgment	22	42
Cultured and refined	20	43

* Frank W Hart, *Teachers and Teaching* (New York The Macmillan Company 1934) pp 131 132 By permission of the publishers

REASONS FOR LIKING TEACHER / LEAST, ARRANGED IN ORDER OF FREQUENCY OF MENTION AS REPORTED BY 8,725 HIGH SCHOOL SENIORS *

Reasons for Liking Teacher / Least	*Frequency of Mention*	*Rank*
Too cross, crabby grouchy never smiles, nagging sarcastic loses temper flies off the handle	1708	1
Not helpful with school work does not explain lessons and assignments not clear work not planned	1025	2
Partial, has pets or favored students and picks on certain pupils	859	3
Superior aloof haughty snooty overbearing, does not know you out of class	775	4
Mean unreasonable, hard boiled, intolerant ill mannered too strict makes life miserable	652	5
Unfair in marking and grading unfair in tests and examinations	614	6
Inconsiderate of pupils feelings bawls out pupils in the presence of classmates pupils nervous and ill at ease and dread class	571	7
Not interested in pupils and does not understand them	442	8
Unreasonable assignments and home work	350	9
Too loose in discipline no control of class does not command respect	319	10
Does not stick to the subject brings in too many irrelevant personal matters talks too much	301	11
We did not learn what we were supposed to	275	12
Dull stupid and uninteresting	275	13
Too old fashioned too old to be teaching	241	14
Not fair and square in dealing with pupils	203	15
Knows the subject but can't put it over	193	16
Does not hold to standards is careless and slipshod in her work	190	17
Too exacting too hard gives no chance to make up work	183	18
Does not know the subject	170	19
Does not respect pupils judgments or opinions	134	20
Too changeable inconsistent unreliable	122	21
Lazy not interested in teaching	117	22
Not friendly not companionable	98	23
Shows boy or girl favoritism	95	24
Dresses unattractively or in bad taste	92	25
Weak personality	85	26
Insincere	75	27
Personally unattractive	65	28
Does not recognize individual differences in pupils	64	29
Voice not pleasant	63	30

* Hart *Teachers and Teaching* pp 250 251 By permission of The Macmillan Company publishers

Shannon [16] have reported investigations in this area A summary of these studies will be found in the references cited Hart,[17] for example, secured the reactions of some ten thousand high school seniors to the qualities of merit in the teacher with whom they had worked The reasons why

[16] J R Shannon *The Personal and Social Qualities of High School Teachers* (Terre Haute Ind Normal School Press 1928)

[17] Frank W Hart *Teachers and Teaching* (New York, The Macmillan Company, 1934)

they liked one teacher and disliked another are given in the above two tables This list supplied a fairly complete picture of the teacher from the pupil's point of view For a discussion of the earlier studies in this area, the reader is referred to the first edition of this volume [18]

3 *What activities, behavior patterns, and performance should characterize good teaching?* The answer to this question will not be easy It is relatively easy to prepare over-all lists of the things that teachers do, should do in general or should be able to do when the occasion arises, but helpful as these lists are for some purposes, they do not answer the question "What performance should characterize the good teacher? Charters [19] has pointed out in another connection the fact that what one actually does in the name of ideals such as honesty morality and so forth, will vary to a considerable extent with the situation He has very rightly emphasized the importance of determining the appropriateness of different trait actions for different trait situations From this point of view there is no very precise answer to the question What activities, behavior patterns, and performance should characterize the good teacher? true for all purposes, persons, and conditions One may, however, seek a practical answer to this question such as Charters and Waples [20] have done in their *Commonwealth Teacher-Training Study* but generalizations must be carefully drawn

4 *What outcomes expressed in terms of pupil growth and achievement should accrue from good teaching?* This question has been discussed at some length in Chapters V and VI A brief reference is made again toward the close of this chapter Further discussion is therefore eliminated at this point to avoid useless duplication

SECTION 4

STEPS IN DETERMINING NEEDS

The steps in determining teacher needs follow a well-known pattern The *first* step is to determine from a survey of the learning teaching situation whether or not the teacher is in need of improvement

Factors which condition pupil growth may be found in a number of areas (1) the pupils themselves, (2) the curriculum (3) the teacher, (4) the materials of instruction, and (5) the socio-physical environment for pupil growth The factors needing improvement in a given situation may not be in the teacher at all, but in one of the other areas

The teacher is more than a classroom operative He must be considered as a personality and as having responsibility for several types of activity He is (1) a director of learning, (2) a friend and counselor of pupils,

[18] A S Barr William H Burton, and Leo J Brueckner *Supervision* (New York D Appleton Century Company Inc 1938)

[19] W W Charters *The Teaching of Ideals* (New York The Macmillan Company 1927)

[20] Charters and Waples *op cit*

(3) a director of extra-curricular activities, (4) a member of a school staff, and (5) a member of the community The *second* step, therefore, is to determine the area in which the teacher s needs chiefly fall

Some of the factors conditioning teacher growth will be found in the school-community situation, some in the principles of learning and leadership held by those in positions of power, and some in the teacher himself We are concerned with all causes of satisfactory or unsatisfactory teacher performance regardless of the area in which they are found, but chiefly here with those resident in the teacher (1) personal qualities, particularly the more stable qualities of the person, (2) mental factors, such as specific knowledges, skills, attitudes, ideals, interests, and appreciations, which condition behavior (3) general states of mind, such as morale, (4) efficiency of learning factors, and (5) principles of effective leadership The *third* step therefore is to locate as definitely as possible the causes of ineffective teacher behavior in order that his growth may be stimulated

The needs of the individual teacher as revealed by the third step may be channeled into certain categories which in turn indicate methods of attack The teacher may need to develop certain (1) mental prerequisites, (2) personal qualities or (3) skills and abilities

To succeed in establishing causal relationships between teacher activities and pupil growth, or between effective performance and its antecedents one must have considerable insight into the nature of learning, teaching, and good leadership It will be noted from what has been said above that there are two types of relationships that need to be established (1) the relationship between teacher activities and pupil growth, and (2) the relationship between effective performance and its antecedents There are plenty of opportunities for inaccurate diagnoses at either of these levels One of the very common mistakes made in establishing relationship between teacher activities and pupil growth is that of assuming that activities found to be potent in some situations are potent in all situations While it is true that some acts will be found to be more frequently associated with effective teaching than others, few will be found to be universally important Approximately the same situation will be found in studying the many factors that condition teaching efficiency Under conditions such as these, it is only intelligent to proceed with caution Only good judgment, superior training, and extensive experience will bring one to sound judgments about the antecedents of effective teaching and pupil growth

Much has been said in the preceding paragraphs about the complexity of the diagnostic process as applied to the study of teaching effectiveness The search for antecedents is somewhat simplified, however, by the fact that attention is directed toward promising leads by the investigator's hunches as to where potent causes may be found One does not collect information at random, therefore, but collects it at the points most likely

to yield information helpful in understanding why the teacher has come to do what he has done The situation is somewhat further simplified too by the fact that one ordinarily directs attention not to a large group of teachers simultaneously, but to some individual teacher in a particular learning-teaching situation The same statement applies, too, to the number of data-gathering devices that one might employ in any particular diagnosis When one thinks of all possible data gathering devices applicable to all teachers and situations, the list is long, indeed, but when one thinks of those that one would ordinarily use with a single teacher the list is not extensive

In studying the teacher at work one will ordinarily begin with the more obvious and easily observable facts—such as the amount of control over the class situation, the amount of pupil attention, activity, and participation, the adequacy of the teacher's preparation and the like—and proceed only later, and if necessary, to the more intricate analyses described in this chapter It is fairly easy to observe whether the pupils are busy or attentive, whether the teacher is fairly well prepared, whether he has the situation well in hand, but these are only some of the easier first steps in analyzing a teaching learning situation Even where pupils are reasonably attentive, they may not however learn much or as much as they should This thought takes us back to the chapter on the evaluation of the educational product But our problem here is to discover the respects in which the teacher is or is not effective and if possible why the situation is as it is In this part of the undertaking one usually begins by noting symptoms and recalling past experiences with similar situations The problem is to separate the incidental concomitants from the truly potent determiners of efficiency and inefficiency The whole process may be summarized somewhat as follows

1 An evaluation of the teacher's performance in relation to other factors in pupil growth
2 A search for the antecedents of satisfactory and unsatisfactory teaching efficiency
   a By noting symptoms (things ordinarily associated with success and failure)
   b By recalling past experiences with similar situations
   c By studying the situation
3 A guess (an hypothesis) as to the probable effective factors in the situation under observation
4 Testing the hypothesis by modifying the circumstances associated with efficiency in some significant respect
5 Noting the changes in teacher efficiency and pupil growth (reevaluation)

SECTION 5

PROBLEMS INVOLVED IN COLLECTING ACCURATE DATA ABOUT TEACHERS AND TEACHING

Problems involved in the study of teachers and teaching We have been discussing in the immediately preceding section of this chapter the steps

involved in analytical studies of teaching The process is quite complex This leads us to say that the whole process of collecting worth-while data relative to teachers and teaching is a matter demanding careful thinking In an earlier section it was pointed out that there were four different approaches to the study of teachers and teaching (1) the mental-pre requisites approach, (2) the qualities-of-the-person approach, (3) the performance approach, and (4) the pupil-growth approach It is always difficult to know what mental prerequisites, qualities, and activities contribute most to teaching effectiveness There has been much written on this subject, but the information that we have is none too precise The purpose of this chapter is to assist in the more precise analysis of teaching efficiency and its prerequisites In order to make our analyses most worth while it may be well to keep in mind certain precautions Certain of these are listed below

1 Some confusion has arisen out of different conceptions of the scope of teaching This has already been referred to above The teacher is not merely a director of learning, he is a member of an important school community To think of him merely as a classroom technician is to think in too restricted terms In considering the choice of data gathering devices as we shall in the pages to follow, we shall seek devices that relate to a wide range of qualities abilities and activities This comprehensiveness will not ordinarily be achieved in a single instrument but it may be achieved by an appropriate grouping of devices The point here is that teaching must be considered comprehensively

2 One particularly disastrous source of misconceptions about teaching has arisen from the tendency to treat as universals, practices that may be good or bad for some particular purposes, persons, and conditions, but not good or bad for all Such statements as "the teacher should (always) stand while teaching," "large unit assignments are (always) better than short unit assignments 'learning by doing is (always) more effective than verbal learning, 'pupils should (always) engage in pleasurable activities, and the like are fallacious, and are all more or less characteristic of the preconceived notion of those who would blueprint teaching In interpreting this statement it should be kept clearly in mind that we are talking here about the specifics of teaching and not about general principles of learning and teaching The careless use of words is another aspect of this situation Certain commonnesses among purposes, persons and conditions do exist and to the extent that these are demonstrable it is quite correct to characterize good teaching in terms of specific acts, patterns of behavior, and general principle Large unit assignments cannot be said to be *always* better than short unit assignments, but it can be said that they are better for certain purposes, persons, and conditions The statement concerning learning by doing versus verbal learning is better stated thus learning by doing is *usually* better with beginners, immature learners, and with some dull learners, but verbal directions for learning are increasingly effective as learners gain experi-

ence, develop insight, or have the requisite intelligence to interpret verbal directions Considerable evidence lies behind such statements It is fairly safe to use even the word *always* in a few cases the use of harsh, sarcastic language is *always* wrong when dealing with confused, frightened, or overly sensitive children—for that matter—with almost any and all children Whether it is better to diagnose a situation before determining on procedure, either for teaching or for punishment depends in part upon what one means by diagnosis

The errors to be avoided are careless use of language and too wide assumptions concerning similarity of aims, of persons and of conditions in different situations

3 One of the particularly difficult problems in the study of teachers and teaching is that of getting down to specifics Much of the discussion of teachers and teaching is in such very general terms that it is not so helpful as it should be When we speak here of studying the teacher at work, as we frequently do in this volume, we are thinking of the teacher as doing something teaching, choosing learning experiences, guiding learning activities, and doing the many things that he will need to do to promote pupil growth These are some of the specifics that we have in mind When we turn from performance to the controls over performance we have in mind other specifics such as the specific knowledges, acts of judgment and skills attitudes, ideals, appreciations and qualities of the person that make for effective and ineffective performance It is not an easy matter in the education of teachers to strike and keep a balance between performance and related background qualities abilities and competencies that condition performance The discussion to follow means to do this and to get down to specifics We shall not be content to discover merely whether a teacher is efficient or inefficient but we shall wish to know, too, why he is so, and what accompanies or lies back of his performance The writers consider this point an important one and the justification of much that follows

1 There is constant confusion between observable facts and the inferences drawn about these facts Supervisors and administrators seldom tell what they actually see in observing teaching but tell how they feel about it Many observers purporting to describe their 'personal experience,' actually relate instead, their opinions about that experience A few extremely uncritical persons in good faith relate as observed things which did not or could not have happened in the given situation This is basically a problem of evidence The reader is referred to extended discussion in the first edition of this volume,[21] and to texts discussing methods of logic and of inquiry

5 Another very interesting problem that arises in studying teachers and teaching is that growing out of the definition of method Conventionally, method has been treated as a special assortment of means, tricks,

[21] Barr Burton and Brueckner *op cit*

and devices such as asking questions, making assignments, guiding group discussion, helping individual pupils, and the like, divorced from the person or personality of the teachers Such a definition neglects certain more inclusive patterns of behavior such as the teacher's personality, his characteristic reactions to children, his modes of responding to conflicting situations and the like that appear to some to be of equal or even greater importance than those conventionally included in the term method " Whether this is as it should be or not seems very much open to question In any case at least two fairly serious objections have been raised to this dichotomy (1) it is difficult to say where the behavior patterns that constitute one's personality leave off and teaching methods begin, and (2) teaching methods are not good or bad in general, in and of themselves divorced from personalities It has been frequently emphasized that method must be considered in relation to purposes We here emphasize the fact that methods must be considered in relation to persons and that it is difficult to draw any very hard and fast line between method and personality In making this statement it is felt that if method were interpreted more broadly than is usually the case, learning would be facilitated Methods and personality may be separated for purposes of discussion but they must be consistently and harmoniously blended in the total teaching act

6 There is no clear conception of the relationship of the specific activities behavior pattern and performance of teachers and the controls over these such as those found in background abilities, knowledges skills attitudes, ideals and personal qualities Any attempt to read the literature in this field will reveal that the subject is approached differently by different persons Some persons discussing the improvement of teaching seem always to talk about the specific acts and patterns of behavior that do or should characterize the teacher's performance Other persons seem more inclined to discuss the mental prerequisites to teaching efficiency such as knowledges, skills, attitudes, ideals, interests and appreciations Still others tend to discuss the improvement of teaching in terms of qualities of the person, such as considerateness, intelligence ethical standards, and the like These approaches all have an important part in the improvement program, but they must be seen in their own interrelatedness and in their relation to pupil growth

7 A final very difficult problem that arises in studying the teacher at work comes out of the whole part relationship There has been much criticism of the atomistic detailed analytical observation characteristic of conventional supervision, the tendency at times to consider parts divorced from wholes The parts of teaching will need very definite attention, but it will ordinarily be best to start with the teacher as a functioning whole and go later to part activities A smooth functioning whole presupposes much more harmony in its parts, than is usually assumed in conventional supervision The drawback to atomistic supervision was not that it con-

sidered parts (for we will always need to consider parts if we are not to talk in the vaguest generalities) but that it considered parts divorced from wholes More consideration of parts in relation to the larger functioning whole would help to remove some misplaced effort We shall at times talk about parts of the total teaching act, but we hope always with the larger whole of which these are a part clearly in mind

SECTION 6

CHOOSING APPROPRIATE DATA-GATHERING DEVICES

Types of data-gathering devices There are many different kinds of data-gathering devices such as tests rating scales check-lists mechanical measuring and recording devices stenographic reports, interviews, and questionnaires that may be employed in studying teaching and the teacher's contribution to learning and pupil growth A list of these is given below

A List of Data Gathering Devices Ordinarily Used in Studying Teachers and Teaching

I Check Lists
- A Question check lists
- B Activity check lists

II Other Types of Records and Recording Devices
- A Written records of various sorts
  - 1 Stenographic reports
  - 2 Diary records
  - 3 Anecdotal records
- B Mechanical recording devices
  - 1 Time recording devices
  - 2 Sound recording
  - 3 The sound motion picture
- C Personal data records
  - 1 Records of training institutional and non institutional
  - 2 Records of experience professional experience non professional extra teaching experiences
  - 3 Data relating to health academic achievement intelligence emotional stability and general cultural background

III Rating Scales
- A Point scales
- B Quality scales
- C Diagnostic scales
- D Graphic scales
- E Human scales
- F Conduct scales

IV Tests
- A Growth and achievement tests
- B Intelligence tests
- C Tests of teaching aptitude
- D Tests of character personality etc

V Interviews, Questionnaires, and Inventories

VI Measures of Pupil Growth

The choice of data-gathering devices Many different data-gathering devices will be described in the materials to follow Ordinarily only a limited few of these devices will be used at any one time or in any one learning-teaching situation The following three suggestions may assist in choosing appropriate data-gathering devices

1 *The device should fit the purpose for which it is to be used* As has already been said one may desire (1) to secure either a general picture of the situation in a number of schools, school systems or states as in a survey, or detailed information relative to an exceptional case of in effective performance as in a program of individualized assistance (2) to study performance or to study teacher factors conditioning performance, or (3) to accomplish some temporary short-time purpose or some more remote goal of reconstruction The choice of instruments will depend on these purposes

2 *The devices should provide data of the desired degree of accuracy* Sometimes the need is for very accurate data, at other times estimates, guesses, and approximations will suffice By and large there are very many more instances in life in which one relies upon estimates guesses, and approximations than there are cases demanding precise measurement In general the devices employed in collecting data relative to the teachers should reach the same standards of accuracy expected in other areas of measurement and evaluation --

3 *The device should be in keeping with the limitations placed by the immediate learning teaching situation* There are limitations of time, money and energy and there are limitations imposed by the attitudes of those concerned and by the availability of help and materials All of these will circumscribe what one may choose to do in a particular learning teaching situation

SECTION 7

CHECK-LISTS

The check-list as a guide to observation An approach to the study of teaching is, as has already been said, one that can be made through the study of performance It is customary in the study of performance to use a guide to the choice of things to be observed, without some sort of reminder one may not recall at the appropriate time some important aspects of the teaching that should be brought under observation Such guides, referred to sometimes as check-lists, have been organized either

-- The reader is referred to the first edition of this volume for a more detailed discussion of this point Chapter IX

as groups of questions to be answered either *yes* or *no* or as lists of activities to be checked as either present or absent

Examples of question lists An example of one of the relatively recent lists is given below in the excerpt reproduced from Pistor's rating sheet for practicing democracy in the classroom The questions are grouped into twelve categories as follows [23]

1 Curriculum Opportunities
2 Selecting and Planning Classwork
3 Personal Relationships of Pupils
4 Relationships with Community
5 Discussion and Class Conference Periods
6 Silent Reading and Directed Study Periods
7 Construction and Experimentation Periods
8 Appreciation and Creative Work Periods
9 Drill and Practice Periods
10 Recreation and Game Periods
11 Routine Affairs and Maintenance Work
12 Organization of Classroom Materials

An excerpt illustrating the questions asked is given below

		Never	*Seldom*	*Sometimes*	*Often*	*Always*
3	*Personal Relationships of Pupils*					
	a Do the pupils seem to be happy and successful in their work?	1	2	3	4	5
	b Do the children know the achievements interests, and ambitions of each other well enough to sense that they belong to a group?	1	2	3	4	5
	c Are the children developing a concern for the welfare of all others?	1	2	3	4	5
	d Do they respect each member of the class as a responsible co worker?	1	2	3	4	5
	e Are the pupils encouraged to communicate freely so they may share their ideas discuss their plans, and evaluate their results?	1	2	3	4	5
	f Do all of the children have opportunity to lead in some activity part of the time?	1	2	3	4	5
	g Are the pupils courteous and friendly in their relationships with others?	1	2	3	4	5
	h Do the children consider the teacher an efficient and friendly guide of the group as well as a competent instructor?	1	2	3	4	5
	i Do the pupils continue to work freely when the principal or the supervisor visits the class?	1	2	3	4	5
	j Do the children continue to work efficiently when the teacher leaves the group or the classroom?	1	2	3	4	5
	Total Value of this Section					

[23] Frederick Pistor, A Standardized Measure of Classroom Democracy, *Journal of Educational Research* Vol 35 (November, 1941), pp 183 192

Another check-list of a somewhat different character proposes criteria for each of four areas of competency Excerpts from two check lists of this type are given below [24]

The Teacher as Counselor and Friend of Adolescents

1. Does the teacher show interest and initiative in learning to know pupils as individuals?
2. Does the teacher make full use of school and community resources for gathering information about pupils and in helping them?
3. Has the teacher made friends with her pupils has she gained their respect and confidence?
4. Is the teacher flexible and resourceful in meeting individual needs and in encouraging pupil growth?
5. Does the teacher seek and gain the interest and cooperation of other individuals or groups (in school and community) in helping the individual pupil?
6. Is the teacher generous in giving extra help to individuals?
7. Is the teacher helpful to individual pupils through effective leadership in extracurricular activities?

The Teacher as a Member of a Community

1. In what community activities is the teacher now participating?
2. Is the teacher willing to assume responsibility?
3. Is the teacher generous in giving credit for the contributions of others?
4. Is the teacher willing to compromise and accept differences?
5. Is the teacher professionally minded objective and free from petty personal differences gossip etc?
6. Do the townspeople like and respect the teacher?
7. Does the teacher find her recreational life in the community?
8. Does the teacher recognize and use the contributions of citizens and community groups in the school program?

Such lists are, obviously, quite subjective, but they have accomplished, nevertheless, certain very desirable purposes (1) they have made supervisors conscious of the necessity for developing criteria for the evaluation of teaching, (2) they have tended to introduce a certain amount of uniformity into the study of teaching, and (3) they have supplied teachers with guides for their own self improvement To get the best results from the use of such devices they must be considered, however, in their proper frame of reference In many instances this frame of reference will be the steps in diagnostic thinking already referred to in Chapter IV pages 131-134 Such lists will have meaning only as they are considered a phase of the larger diagnostic process They are never mechanized substitutes for good thinking and are never fixed in their application Then, too, the usefulness of such lists will be greatly augmented when the reports are accompanied by the data upon which the answers to the several questions are based For a review of the literature on check-lists, particularly that concerning attempts to develop objective criteria, the reader is referred to the first edition of this book [25]

[24] Developed by the staff of the Department of Education University of Wisconsin
[25] Barr Burton and Brueckner *op cit* pp 391 433

Activity check-lists A slightly different approach has been made by Brueckner and others through what may be called the activity check-list The conventional type of evaluation is likely to be highly subjective In the first place, the judgments about the things observed are often based upon partial data, estimates and guesses rather than exact data The vocabulary employed in recording the observations frequently fails too to distinguish between inference and observable fact The result is frequently a highly subjective evaluation The idea behind the activity check-list is that the evaluation and improvement of teaching might be enhanced if the descriptive facts in the case were first recorded as objectively as possible, and then the interpretation of these facts made a separate operation Activity check-lists such as these are presumably more objective than the question lists referred to above One of Brueckner's activity check lists on recording facts about lessons in the social studies is reproduced on pages 346-347

A Survey of Instructional Practices and Materials Used in Observed Lessons in the Social Studies in Grades 6 7 and 8[28]

School *City* *Grade Observed*

Years of Experience of Teacher *Number of Pupils in Class*

Teacher's Training Normal or T C 1 2 3 4 College or University 1 2 3 4 5

Directions Observer please check items below as seen in one social studies lesson in grades 6 7 8 Space is provided for addition of items that seem vital

I Objectives (Check one most apparent)

1 To determine how completely pupils have mastered facts in text
2 To develop effective habits and methods of study
3 To develop understanding of current social order
4 Finding and using facts for development of topic in unit
5 To develop interest of pupils in social study through activities planned and executed by pupils under teacher guidance
6 Others such as

II Instructional procedures used (Check all those occurring)

1 Discussion by teacher such as overview, preview, etc
2 Extensive questioning by teacher
3 Pupils volunteer personal experiences related to topic
4 Teacher illustrates topic by reference to personal experience
5 Application of general principles to local study situation (Constant Change etc)
6 Dramatization of materials studied
7 Class debate under formally adopted rules
8 Discussion of current events
9 Reports given on assigned topics studied independently
10 Visual stimuli presented
11 Listing activities involving mechanical devices (Radio, Instruments, etc)
12 Construction of models mountings other items

[28] Prepared by Leo J Brueckner Professor of Education University of Minnesota

13 Supervised study
14 Undirected study
15 Planning for, or reporting on, excursions to study local affairs
16 Written review, or preview, to test pupils' knowledge
17 Others such as

III Presentation of subject matter
1 Subject matter taught as geography, history civics, and so forth
2 Unified, correlated course in social studies emphasizing subject matter
3 Activity units, no subject emphasized

IV Type of assignment
1 No advance assignment given
2 Further work on problems in a unit already assigned
3 Study certain pages or chapters in one text only
4 Study of several texts and sources according to teacher prepared plan
a no motivation observed *b* motivation by teacher observed
5 Creative activity projects (surveys etc.) brought in by teacher
6 Creative activities planned by pupils for execution guided by teacher
7 Others such as

V Unit of instruction
1 A unit of work stated and completed in a single period
2 Series of unrelated activities, not a unit
3 Long study unit such as contracts Morrison units, etc
4 Others such as

VI Class organization
1 Class as a whole
2 Pupils in groups
3 Complete individualization of pupils' work
4 Any combination of 1 2 and 3
5 Others such as

VII Equipment and materials used in this class observed
1 Furniture and fixtures
A Blackboard
B Bulletin board
C Special cabinets and filing cases for slide, maps, etc
D Cupboards for tools materials
E Immovable seat desk units
F Movable single desk units
G Tables for two or more
2 Books, periodicals, and papers
A Almanac
B Encyclopedia
a Children's general
b Historical
C Yearbooks
a Statesmen
b American
D Collateral readings, list approximate number
a Biographies
b Geographical readers

c National and state government bulletins
d Historical documents
e Historical fiction
f Historical plays
g Source books
h Supplementary sets of texts
i Workbooks or outline note books
j List below titles of all periodicals and newspapers used

3 Maps charts, atlases
A Maps
a Globes
b American series
c Political physical wall maps
d Slated outline maps
e Desk outline maps
B Atlases
a Historical
b Geographical
c Charts and tables or graphs not in textbook

4 Visual aids
A Topical collections of illustrations and clippings
B Slides films etc
C Booklets steamship and railway folders
D Mounted wall pictures
E Mimeographed sheets and outlines
I Others such as

5 Unusual auditory exercises
A Radio program
B Phonograph records
C Talks by experts, lectures etc
D Others such as

6 Supplies
A Cardboard for construction
B Cardboard for mounting
C Soap plastic clay or other material for modeling
D Chart and graph paper
E Drawing materials
I Others such as

7 Economic and industrial exhibits
A Minerals and rock collections
B Economic and industrial specimens
C Raw textile materials
D Manufactured textiles
E Others such as

Check lists such as these are meant simply to supply a convenient means of collecting data judged to be significant about the happenings in a learning teaching situation When these lists are employed to indicate merely the presence or absence of some important activity, they are referred to as *qualitative,* when the records are extended to include both the frequency with which the various activities occur and the time con-

sumed by each,[27] they are referred to as *quantitative* In activity checklists such as those described above, evaluation is distinguished from fact-finding and recording, the evaluation is treated, as it should be, as a separate operation

Studies of the validity, reliability, and objectivity of activity analyses Barr initiated, some twenty years ago a series of studies of the validity reliability, and objectivity of the activity method of studying teaching Sigurdson [28] and Struck [29] working under his direction made the first studies of the reliability of the activity method Sigurdson's study was based upon five consecutive visits to each of seventeen teachers, Struck's upon five consecutive visits to twenty one teachers From an analysis of the data collected in these two studies it seemed that the teacher's performance may be highly variable and that activity analyses based upon single observations of teaching such as those made in these investigations may provide quite unreliable indices of what a teacher may do at other times and under different circumstances The findings emphasize the fact that reliable samples of teaching are seldom secured from a single short visit

Schoonover [30] and Midthun [31] conducted studies of the objectivity of the activity analysis method In one of these the agreement in observations of a single teacher by a number of people using the same check list and all observing the same teacher at the same time was studied in the other the agreement in the conclusions derived relative to a number of different teachers by two observers using the same check list and simultaneously observing the same teacher was studied The first procedure gives a fairly accurate picture of what a number of observers will do when observing the work of a particular teacher the second procedure gives a fairly accurate picture of what two or more observers will do when observing the work of many different teachers

Although the results from the two studies were by no means in perfect agreement they were sufficiently in accord to indicate approximately the amount of agreement to expect from observations made under the conditions under which these were made The higher coefficients of objectivity were found in items of the more detailed sort expressed in terms of specific teacher and pupil activities the lower coefficients were found

[27] L J Brueckner The Value of a Time Analysis of Classroom Activity as a Supervisory Technique *Elementary School Journal*, Vol 25 (March 1925), pp 518 521
J M Hughes, Time Analysis of Activity in High School Physics *Journal of Educational Method*, Vol 7 (November 1927) pp 75 80

[28] Sigurd Sigurdson *The Reliability of the Activities Check List for the Study and Improvement of Teaching* Bachelor of Arts Thesis, University of Wisconsin 1929

[29] L A Struck, *The Reliability of the Activities Check List* Masters Thesis University of Wisconsin 1929

[30] A F Schoonover *A Study of the Objectivity of a Teacher's Check List*, Bachelor of Philosophy Thesis University of Wisconsin 1927

[31] M V Midthun *The Objectivity of an Activities Check List for the Study and Improvement of Teaching* Masters Thesis University of Wisconsin 1928

among the vaguely worded items, such as use of pupil experiences, humanized subject-matter, character of the assignment, and so forth As far as these data are reliable, it would seem that the objectivity of activity analyses such as these may depend upon (1) the precision of the definition of the activity to be observed, (2) the amount of training and skill of the observers, and (3) the number of items simultaneously observed

Barr studied the validity of activity analyses[32] In an extensive study of forty-seven poor and forty-seven good teachers of history civics, and geography, at junior and senior high-school level, he attempted to collect data on the validity of the activity method The details of the investigation cannot be repeated here, in general, however, the results of the investigation would seem to indicate that while there were doubtless factors contributing to success and failure in teaching no critical factors were discovered which always distinguished the activities of good teachers from those of poor teachers These findings seemed to apply to both the qualitative and quantitative differences in the teaching performances of good and of poor teachers

The above findings need careful interpretation In the first place the fact should be emphasized that the activities here studied are of the very detailed sort The study does not refer to general methods, or to the more inclusive type of teaching procedures In the second place it seems that specific acts, such as these, are not good or bad in general but may be good for certain purposes, persons, and conditions These studies neglected the appropriateness aspects of teaching activities When activities are averaged, as they were in this study without regard to the purposes and conditions giving rise to them, there is a tendency for those of good teachers to average out with about the same frequencies as those of poor teachers This fact should be kept in mind in interpreting the results

The low correlations found in this investigation between the items studied and estimates of teaching success may have arisen from any one or all of three facts (1) the evaluations in this study, as in other studies, are subject to many errors of measurement sampling and recording (2) small units of teaching such as a single teaching act, must necessarily contribute small amounts of gain to the total teaching act and (3) activity analyses such as this neglect, as has been said, the appropriateness aspect of the activities studied

The appropriateness of an act is quite as important as its frequency or duration An act in place at one time may be quite out of place at another time The worth-whileness of an activity can really be determined only when the conditions calling it forth are known This fact, and the others given above, doubtless explain the low correlations between time and frequency facts and teaching success

[32] Barr *op cit*

It seems clear from this and other studies that the teaching act must be highly varied We have emphasized here the fact that purposes, persons, and conditions may differ greatly from situation to situation To the extent that the purposes, persons, and conditions may be assumed to be similar from situation to situation, one should expect constancy in what is good teaching from one situation to another Only when such uniformity is assumed can constancy in the teaching performance be expected

The personal interpretation of objective data The introduction of objective data-gathering devices in the field of teacher study has brought about certain misconceptions, the most dangerous of which is probably the one that has arisen out of the confusion of validity and objectivity Suppose, for example, that the following facts have been collected about a given recitation or activity the recitation started one minute late, the teacher spent ten minutes of a sixty minute period in making an assignment, thirty minutes in discussion, and twenty minutes in supervised study, in the thirty minutes discussion the teacher talked twenty minutes and the pupils ten minutes he asked twenty three fact and seven thought questions, and he lectured for ten minutes He made three mistakes in English and two errors of fact, the pupils made five uncorrected mistakes of fact, he corrected one erroneous pupil response and repeated twelve pupil responses Was the teacher a good teacher?

Now the point of this illustration is that the collection of data about teaching is one thing and the evaluation of these data another In not a few cases supervisors who may have exercised great care in collecting data give only a very biased personal evaluation of them It may, for example, be a recorded fact that the teacher used 73 per cent of the class period and the pupils 27 per cent during one short period of observation Is the teacher a good teacher? Aside from the fact that good teaching is made up of many things well done, not a few supervisors might decide that, since the data are objective they must be valid While it is generally recognized that there is too much teacher talk and too little pupil activity in classrooms, the excessive amount of teacher talk may have been in this instance wholly justified We were speaking a few moments ago of activity analyses An activity analysis merely indicates what teachers do it does not indicate the quality or appropriateness of this activity The data may be objective but if the supervisors evaluation is personally biased, very erroneous conclusions may be drawn Thus supervisors may make very erroneous evaluations on the basis of objective data

The use of principles in evaluating teaching The problem of devising criteria for judging teaching is, as has already been said, a most difficult and important one After due consideration, many people have thought that it might be better to attempt such evaluation in terms of principles rather than in terms of activities This approach is particularly important

because much of our educational literature, whether of a personal, scientific, or philosophical character, eventually becomes a summary of generalizations, principles and theories The principle is a powerful tool of analysis built upon the common elements in learning and teaching situations Time and again the authors of this volume have emphasized principles of one sort or another as controls over practice A very large number of principles relating to some of the more inclusive aspects of educational leadership are suggested and enumerated in Chapter II, those to pupil growth in Chapter VII, and certain important principles relating to teacher growth in Chapter I Any one of a number of good books on learning and teaching methods will be found to supply (even though not always specifically labeled as such) lists of important principles of learning and teaching The reader is specifically referred to the following

BURTON W H *The Guidance of Learning Activities* (New York D Appleton Century Company Inc 1944)

GATES Arthur I and others *Educational Psychology* (New York The Macmillan Company 1940)

PRESSEY, Sidney and ROBINSON Francis P *Psychology and the New Education* (Revised edition New York Harper & Brothers 1944)

Some precautions that should be taken in the use of principles Important as is the principles approach to the study of learning and teaching methods there are certain precautions that those using this almost universal approach to education should take

In the *first* place principles supply only one control over practice Other controls will be found in the purposes of education and the immediate learning teaching situation This is no criticism of the principles approach, but merely one of the precautions that needs to be taken when this approach is used

Secondly, the principles employed in the study of learning and teaching procedure should be known to be valid The books just cited above contain many such validated principles The more technical publications of education contain many more such principles The reader is referred particularly to such publications as the *Review of Educational Research* The *Encyclopedia of Educational Research*, the *Journal of Educational Research*, the *Journal of Experimental Education*, the *Journal of Educational Psychology*, the *Elementary School Journal*, and the *School Review*

Finally those who use principles should always remember that a principle is merely a verbal summary of an observed uniformity in nature Being a verbal summary it is always subject to the limitation of such summaries Words, as is now commonly recognized, may have many different meanings at different times and places and with different persons The difficulty is in part one of language and in part one of knowing what is implied by the language used The point may be illus-

trated as follows Let us suppose that we have experimentally determined that, everything else being equal, subject-matter functionally taught is longest retained We now want to apply this principle to teaching What does the teacher do who teaches subject matter functionally? If the evaluation is to be based on objective data, the observer will doubtless answer this question by turning to activity analyses such as those described earlier in this chapter In the absence of such definition the meaningfulness of important principles of learning and teaching may be greatly impaired

The importance of knowing results It is easy to see from the foregoing discussion that the evaluation of teaching is an exceedingly complex activity A number of precautions have been suggested Even with the most meticulous application of these precautions many mistakes will be made With this thought in mind the authors would like to emphasize again the importance of observing teacher and pupil activities in relation to educational outcomes as well as with reference to purposes principles, and the limiting aspects of the situation In the last analysis those activities are good, broadly conceived, that get good results regardless of prior judgments made on the basis of principles and other criteria This statement is meant in no way to minimize the importance of educational criteria as guides in evaluating teaching but merely to suggest their intermediary position In practice it is exceedingly important that teachers and supervisors be able in a measure to anticipate the results that they wish to achieve and to determine the best ways of achieving them The vehicle of all such anticipations will be found in the generalizations that grow out of science, philosophy and past experiences with similar situations The purpose of the whole science and philosophy of education is to build up such a body of facts and principles The reader may recall from Chapter IV the sequence of mental operations outlined there for studying the factors conditioning pupil growth and achievement The first step, as well as the last step in this sequence is the evaluation of pupil growth and achievement Somewhere between these first and last steps in studying the teaching-learning situation the evaluator will formulate hypotheses relative to the factors associated with pupil growth and achievement in particular learning and teaching situations These hypotheses should be formulated in the light of what is known about the situation at hand and the generalizations formed from past experiences with similar situations With these facts and generalizations in mind, an improvement program may be projected The ultimate measure, however of the effectiveness of the improvement program is not whether it conforms to previously derived facts and generalizations but whether it induces the desired changes in the particular situation to which it is applied Between the first and last steps of this process many judgments will have been reached, important as these are, they constitute merely an intermediary step in the evaluation-improvement process

SECTION 8

OTHER TYPES OF RECORDS AND RECORDING DEVICES

The use of recording devices Long before check lists were employed in recording the happenings of the classroom, supervisors were accustomed to making written notes for this purpose As the demands for more accurate information grew, these written reports included more and more of the happenings of the recitation until a number of fairly elaborate recording devices came into use The most elaborate of these is the stenographic report, a somewhat less elaborate and more practical device is the written diary In many instances stenographic reports and diary records were supplemented by samples of the written materials prepared by teachers from time to time, such as unit and lesson assignments teaching outlines, study helps, and examination questions All in all, such materials provide valuable means of gathering worthwhile information about the teacher at work and warrant more general use

The use of the stenographic report Many persons have used the stenographic method of recording the events of the class period Hosic [33] employed this technique in studying the content of lessons taught by teachers of literature Barr [34] employed the technique in making records of the work of teachers of the social studies and in recording the interviews of supervisors in training [35] A convenient collection of such reports of lessons can be found in a report of the Efficiency Committee of the Central Division of the Illinois State Teachers Association [36]

Diary records of teaching A second device used somewhat extensively for the collection of data relative to the happenings of the class period is the diary record In a diary record the happenings of the class period are merely recorded *seriatim* as a kind of running account of events An example of such a record of a portion of a class discussion in ninth grade civics is given here [37]

A DIARY RECORD OF A PORTION OF A RECITATION IN NINTH GRADE CIVICS

8 09 Teacher closes door and takes seat at desk where he works quietly for about two minutes The pupils become quiet and begin work

8 11 Bell rings Teacher calls on Frank, who explains one of his own contributions to the bulletin board

8 13 Teacher comments briefly Pupil volunteers some new information

[33] James F Hosic *Empirical Studies in School Reading*, Contributions to Education, No 114 (New York Bureau of Publications, Teachers College Columbia University 1921)

[34] Barr *op cit*

[35] C J Anderson A S Barr and Maybell G Bush *Visiting the Teacher at Work* (New York D Appleton Century Company, Inc 1925)

[36] H A Peterson and I A Turner *Stenographic Reports of Eighteen Lessons in the Elementary School* (Bloomington Ill, Public School Publishing Co, 1928)

[37] This report was followed by other reports and informal discussion There were many volunteer contributions and frequent use of illustrative materials The discussion period was followed by a supervised study period

8 15 Teacher continues questions calling on volunteers
8 17 Joseph starts discussion on free education in Wisconsin Pupil talks and asks questions of the rest of the class Teacher takes seat in rear of room where he sits quietly and attentively
8 20 Teacher interrupts to restate pupils' questions Class can't answer question Teacher said he didn't know until he looked it up
8 22 Teacher asks permission to ask question
8 25 Teacher suggests that Mr C not be called upon so frequently

The chief advantage of the diary method is that it retains the element of continuity in the data recorded This factor is frequently important The data must still, however, be evaluated after they have been collected

Anecdotal records Much has been written in recent years about anecdotal records As in diary or any partial record of the happening observed, there is always a large amount of personal judgment in the choice of items to record One of the most useful of the more recent records is that developed by the staff of the College of Education, Ohio State University, Columbus Ohio[58] This form starts out by supplying a plan for gathering facts on which to base a description of the learning-teaching situation The importance of knowing the situation has already been emphasized in an earlier section of this chapter Then after a brief statement of the nature and use of the record form, the authors supply a list of questions directing the observers attention to important aspects of the events observed and also supply ruled space for recording anecdotal evidence for three observations under each of eight major headings as follows (1) the material of instruction, (2) purposes, (3) methods, (4) effectiveness (5) pupil problems, (6) use of community resources, (7) fostering of democratic attitudes and relationships and (8) unique competencies suggested by the field of specialization These materials are then followed by a fairly detailed summary statement of the teacher's philosophy of teaching The form is an admirable attempt to think more systematically than is usually done about the complexities of teaching

Time chart records A time chart is a device for recording *seriatim* the amount of time given to the various activities of the class period, such as the assignment, the teacher's questions, the pupils responses, the use of visual aids supervised study, tests the pupils' quizzes, and so forth The form used by Barr[59] in studying the activities of teachers of the social studies is reproduced in Charts I and II pages 408-409 of the first edition of this volume The use of the time chart should assist supervisors in the preparation of detailed time summaries of the actual happenings of the class period This technique is of value where more adequate recording devices are not available

[58] The Ohio Teaching Record Anecdotal observation form (Revised edition Columbus Ohio College of Education Ohio State University, 1941)
See also L L Jarvie and Mark Ellingson *A Handbook on the Anecdotal Behavior Journal* (Chicago University of Chicago Press 1940)
[59] A S Barr *An Introduction to the Scientific Study of Supervision* (New York D Appleton Century Company Inc 1931)

The use of sound and sound-motion recording devices One of the most interesting recent developments in the gathering of data is the use of sound and sound motion recording devices[40] Reference has already been made to the use of stenographic reports and other devices for recording the happenings of the class period The use of sound and sound motion recording devices is merely one more step in the direction of securing more adequate records of teacher and pupil activities in concrete learning and teaching situations

Few persons who have not attempted to make studies of teaching have any appreciation of its complexity and elusiveness The evaluation of teaching really involves a threefold operation (1) the securing of adequate records of the purposes and conditions that prevail in the learning-teaching situation under consideration, (2) the collection of reliable data relative to teacher and pupil activities, and (3) the evaluation of the data collected When sound recording instruments and combinations of sound and motion-recording devices are employed in making records of teaching, they do solve quite satisfactorily the problem of getting permanent and accurate records of what takes place, that is, as far as observable behavior is concerned but they do not solve the problem of evaluation In the older set up the evaluator had to record, analyze, and evaluate the happenings simultaneously and in a complex situation, with many things taking place in rapid succession that was a difficult assignment With the sound record or the sound picture teachers and supervisors can analyze and evaluate the events associated with learning and teaching in a more leisurely fashion Many schools cannot as yet afford such equipment but when such records are made they can be examined in detail and as often as necessary by those concerned The evaluations may be made subjectively or through the application of established criteria If one does the evaluating purely subjectively, then the evaluations are subject to all of the limitations of this method Unfortunately, some supervisors have thought that with such records their problems of evaluating teaching had been wholly solved They confuse thus, the two phases of analysis (1) the observing and recording of facts, and (2) the evaluating of the events observed The evaluation of teaching even with adequate records is still a very complex activity

Records providing data on the personal equipment of the teacher Thus far in this section we have been discussing the means of gathering data relative to the purposes, conditions, and happenings in specific learning and teaching situations Besides these records of on going events and conditions there are yet other sources of information, principally documentary in character, that will be found in the personnel records of most school systems These data may include a very large assortment of

[40] A S Barr and C D Jayne, 'The Use of Sound Recording Equipment in the Study and Improvement of Teaching *Journal of Experimental Education*, Vol 4 (March 1936), pp 279 286

facts relating to the training and experience of teachers, both in and out of school, data relating to special interests, aptitudes and capacities, health data and the like Data of these sorts are frequently helpful in supplying important information relative to the teacher s background

SECTION 9

RATING SCALES

The use of rating scales in studying the teacher at work Thus far we have discussed three types of data-gathering devices (1) check-lists, (2) written records of various sorts, and (3) mechanical measuring and recording devices Yet another observational device somewhat different from those already discussed in this chapter, is the ordinary teacher rating scale This device was employed long before many of the new-type devices described above were devised Because of their association with their administrative uses, rating scales are not generally regarded as instruments of improvement, but they can be a source of much valuable assistance in this respect when properly used Rating scales, like all other data-gathering devices discussed in this chapter are best employed when cooperatively developed and applied At no time in this discussion are we thinking of the conventional, administrative, applied from without type of evaluation This point is discussed at some length near the end of this chapter

Types of rating scales now in use There are six types of rating scales now in general use for evaluating the efficiency of teachers (1) point scales (2) graphic scales, (3) diagnostic scales, (4) quality scales (5) man-to man comparison scales, and (6) conduct or performance scales Because of the importance of these several instruments in studying the teacher at work, each kind will be described briefly, the reader should relate each in turn to the four approaches to evaluation discussed earlier in the chapter, namely the mental prerequisites approach, the qualities of the person approach, the performance approach and the pupil change approach Professional educators are not always agreed as to where the emphasis should be placed in evaluation whether upon the situation the person, the performance, or the results We believe, however that all are important and need careful investigation It is quite clear in the illustrative material to follow as well as that which has preceded, that the emphasis upon these different aspects of the learning-teaching situation varies A summary of the aspects of teaching most frequently considered in such scales is presented in the table on pages 360 361

TEACHER'S RATING SCORE CARD

Commonwealth of Pennsylvania
DEPARTMENT OF PUBLIC INSTRUCTION
TEACHER BUREAU
Harrisburg

Name _____
Last Name First Name

District County School

Subjects _____ **Grades** _____

PERSONALITY[a]	Highest	High	Middle	Low	Lowest	Q T
Appearance						
Power						
Voice						
Character						
Cooperation						
Score	X	X	X	X	X	
PREPARATION[a]						
Command of English						
Specific knowledge						
General scholarship						
Professional equipment						
Citizenship						
Score	X	X	X	X	X	

TECHNIQUE[a]	Highest	High	Middle	Low	Lowest	Q T
Room conditions						
Subject matter						
Resourcefulness						
Motivation						
Conclusiveness						
Score	X	X	X	X	X	
PUPIL REACTION[a]						
Habits and skills						
Command of subject matter						
Thinking ability						
Expression						
Tastes and ideals						
Score	X	X	X	X	X	

Q T —Quantitative Translation.
Highest 5 High 4 Middle 3 Low 2 Lowest 1
[a] Check value of each quantity before making quantitative translation

I certify that the above named teacher has taught for years months under my supervision from to and has received from me a rating of

Date , 19 Signature of Scorer Official Position

DEFINITIONS

I PERSONALITY

1. *Appearance*—*Attractiveness* cleanliness neatness appropriateness of attire posture
2. Voice—Rate of speech distinctness of enunciation flexibility; pitch tone
3. Power—Health vigor initiative command
4. Character—Tact kindness optimism sense of humor justice integrity morality
5. Co-operation—Sympathy open mindedness cheerfulness loyalty; cordial working relations with pupils, colleagues and superiors.

II PREPARATION

1. Command of English—Clearness, accuracy and fluency of diction absence of grammatical errors and colloquialisms unity and coherence of ideas appropriateness and force in choice of words
2. Specific knowledge—Accuracy, quantity and organization of the lesson's subject matter
3. General Scholarship—Breadth of information sense of relative values; power of logical thinking
4. Professional equipment—Knowledge of current educational theories and practice knowledge and use of educational psychology improvement with experience
5. Citizenship—Sense of civic responsibility participation in community activity, evidence of right civic thinking and teaching in class room.

III TECHNIQUE

1. Room conditions—Hygienic conditions attractiveness order, adaptations of furniture and equipment to specific needs.
2. Selection and organization of subject matter—Definiteness of aim adaptation to pupils interests needs and capacities skill in questioning
3. Resourcefulness—Sense of proportion treatment of answers use of illustrative material
4. Motivation—Recognition of pupils apperceptive bases relation of lesson to pupils interests use of problem method.
5. Conclusiveness—Each lesson a unit pupils sense of something done; results secured.

IV PUPIL REACTION

1. Efficient functioning of habits and skills—Promptness regularity and good form respect for self and for the school authorities skill in the arts.
2. Command of subject matter—Good lesson preparation accuracy and availability of information
3. Thinking ability—Recall and selection of significant facts coherence of ideas ability to draw sound conclusions
4. Expression—Clearness grammatical correctness precision and conciseness in use of English good vocalization and bodily attitudes.
5. Tastes appreciations and ideals—In literature art and science; evidence of thoroughness, integrity and fairness.

FOR INSTRUCTIONS IN USING THIS SCALE SEE REVERSE SIDE

A TYPICAL POINT SCALE

From A S Barr *An Introduction to the Scientific Study of Classroom Supervision* (New York D Appleton-Century Company Inc, 1931) pp 342 343

INSTRUCTIONS FOR USING THE TEACHER'S RATING SCALE

The efficiency of this scale depends largely upon the extent to which qualitative rather than quantitative values are applied in the preliminary steps.

Think of the qualitative values as possessing the following numerical values: very high—5, high—4, medium—3, low—2, very low—1. The value zero is purposely omitted from the scale as it is assumed that at least twenty per cent efficiency would be possessed by anyone qualifying at all for the profession.

In rating a teacher make the qualitative rating in all the elements of the scale before making the quantitative translation.

When rating several teachers rate all of them qualitatively on each qualification before making the quantitative translation for any one.

The sum of the ratings given under each of the four general qualities is the teacher's final rating.

Try hard not to think in terms of percentages and particularly in terms of the usual passing grade of seventy or seventy five per cent. The medium grade according to this scale is obviously sixty. That is, if a candidate received three in each of the qualities of the scale the total would be sixty points. There would presumably be as many below this point as above.

Be careful not to rate too high. Out of one hundred teachers a normal frequency distribution should show five 5's, twenty 4's, fifty 3's, twenty 2's, and five 1's. This distribution should not be binding upon your judgment but it is reasonably certain that 3 will occur far more frequently than any other number.

In using the scale for the first time it would be well to select from your experience teachers who would represent each of the five points under each of the qualities of the scale and in rating a particular candidate make a comparison with the person so selected as a standard for the scale.

In using the scale for the first time it might be well to make a few experimental ratings before actually rating a teacher.

You may be called upon to rate a teacher you have known only a short time. While longer acquaintance is desirable, the rating scale will enable you to use what knowledge you have to the best advantage.

The purpose of the scale and its adveration is not so much to qualify or disqualify the teacher rated as it is to secure a qualitative basis upon which constructive supervision and assistance may be rendered the teacher rated.

It is hoped as soon as possible to have teachers rate themselves and to have these ratings form a definite part in the general rating scheme.

REMARKS (This space should be used by the scorer in giving additional information concerning the teacher rated and the circumstances of the observation.)

NORMAL DIPLOMA applicants must have the following Chara ter and Experience Records properly endorsed. This is to certify that the Board of School Directors of _____ District have employed this applicant for _____ annual school terms and have found the said applicant to be a successful teacher and a person of good moral character. As superintendent I concur with this statement.

Signature of Secretary of Board of School Directors _____ Signature of County or District Superintendent

* The Board of School Directors of _____ School District having employed the above named applicant for _____ annual school terms concur in the above certification. As Superintendent I concur with this statement.

Signature of Secretary of Board of School Directors _____ Signature of County or District Superintendent

* To be used when the applicant has taught in more than one school district.

A Composite View of the Qualities Essential to Teaching Success Based upon an Analysis of 209 Rating Scales *

		Frequency
I	Classroom Management (general) (7 97, 119, 148, 152) **	205
	1 Attention to physical conditions	
	Heat (45 167, 171)	48
	a Light (68, 160 175)	49
	b Ventilation (42, 145, 150)	58
	2 Housekeeping and appearance of room (7 97 119 148, 152)	174
	4 Discipline (6 137 138, 179 184 188)	160
	4 Economy of time (50)	34
	5 Records and reports (43 70)	67
	6 Attention to routine matters (31 162 183 197)	72
II	Instructional Skill (general) (1, 37 89 118 141 143 157 198)	371
	1 Selection and organization of subject matter (4, 87, 165)	177
	2 Definiteness of aim (15 109, 161)	110
	3 Skill in assignment (14 127, 128, 171)	118
	4 Attention to individual needs (26 182)	70
	5 Skill in motivating work (27 131)	78
	6 Skill in questioning (25 194)	72
	7 Skill in directing study (30, 190)	65
	8 Skill in stimulating thought (49)	35
	9 Daily preparation (lesson planning) (21 52 154 192)	116
	10 Skill in presenting subject matter (60 87)	54
	11 Pupil interest and attention (91)	22
	12 Pupil participation (56 176)	38
	13 Attitudes of pupils (75 76 181)	56
	14 Results (in one form or another) (51 22 29 41 89 111 126 140 147, 153 159 189)	305
III	Personal Fitness for Teaching (general) (5 18 33 88 117 125 129 142 149 189)	369
	1 Accuracy (carefulness, definiteness thoroughness) (54 180)	47
	2 Adaptability (48 65)	61
	3 Attitude toward criticism (67)	28
	4 Considerateness (appreciativeness courtesy, kindliness sympathy, tact unselfishness)	115
	5 Energy and vitality (53, 135 144)	55
	6 Enthusiasm (alertness animation inspiration spontaneity) (24)	67
	7 Fairness (sense of justice) (77 82)	49
	8 Forcefulness (courage decisiveness firmness independence purposefulness) (186)	5
	9 Good judgment (discretion foresight insight, intelligence) (63)	30
	10 Health (10, 187)	106
	11 Honesty (integrity dependability reliability) (59 120)	46
	12 Industry (patience perseverance) (40)	46
	13 Leadership (initiative, self confidence self reliability) (17 57 96)	131

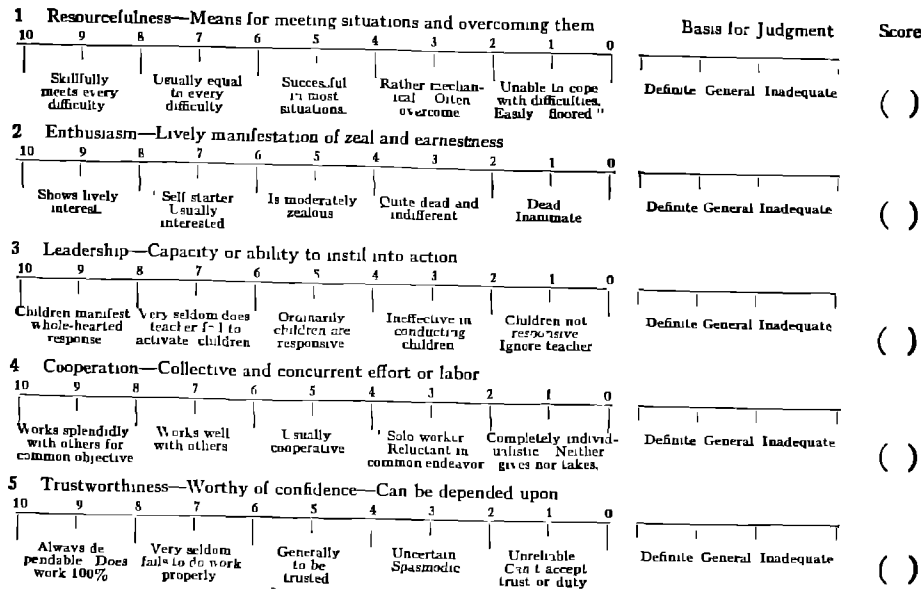
* A S Barr and Lester M Emans "What Qualities Are Prerequisite to Success in Teaching?" *The Nation's Schools* Vol 6 (September 1930) p 62

** The numbers in parentheses following each quality or trait refer to the number of the item in the original study

14	Loyalty	
15	Morality (92, 101, 123)	56
16	Open-mindedness	
17	Optimism (cheerfulness, pleasantness, sense of humor, wittiness) (86, 112, 124)	54
18	Originality (imaginativeness, resourcefulness) (36, 141)	58
19	Personal appearance (8, 64, 84 85 106)	213
20	Posture (190)	5
21	Progressiveness (ambition) (121)	15
22	Promptness (dispatch punctuality) (20 98 103)	112
23	Refinement (conventionality good taste modesty simplicity)	
24	Self control (calmness dignity poise reserve, sobriety) (28 95)	88
25	Skill in expression (13 169)	94
26	Sociability (33)	52
27	Thrift	
28	Understanding of children (90)	23
29	Voice (pleasing) (11)	96
IV	Scholarship and Professional Preparation (24 35 38 40 100 110, 130, 134 155, 158, 163 173 193)	301
V	Effort Toward Improvement (32, 62, 139 195)	98
VI	Interest in Work Pupils Patrons Subjects Taught etc (37 69 72 91, 102 113, 172, 185)	172
VII	Ability to Cooperate with Others (9 55 58, 74 93 142 146)	235

Point scales A point scale ordinarily consists of a list of qualities commonly associated with good teaching to which point scores have been assigned according to the supposed contributions of each quality to teaching success The number of qualities listed and the degree of control recognized vary from scale to scale Now fourteen or fifteen years old but typical of scales of this sort, the score card reproduced on pages 358-359 is that used by the Pennsylvania Department of Public Instruction This scale, like each of the others used for illustrative purposes in this chapter has been chosen because of its tested value All save one have been subjected to systematic study and have been found to possess statistical validity, according to studies noted on page 373

Three problems confront those interested in the development of point scales *First*, there is the problem of the selection of traits, characteristics, and qualities representative of teaching success The traits chosen for use in the scale must be known to characterize good teaching *Second*, there is the problem of the description of each trait in such terms that the judgments about it are made objective The description of such traits is usually highly subjective And *third*, there is the problem of the weighting of each trait and the degree of control over it in such a way that the teacher's total score correlates with his observed success as a teacher This latter condition is not frequently attained



SAMPLE OF THE ALMY SORENSON RATING SCALE

From Almy Sorenson Rating Scale for Teachers (Bloomington Ill Public School Publishing Co 1930)

Graphic scales A graphic scale is similar to a point scale except that the degree of control exercised over each item is portrayed graphically An excerpt from the Almy-Sorenson rating scale is reproduced opposite The scale is composed of twenty items as follows resourcefulness, enthusiasm, leadership, cooperation, trustworthiness, honesty, fairness, sympathy, tact, patience, courteousness, love for children, progressiveness, poise, kindness, originality, good humor, helpfulness, promptness and foresight The graphic aspects of such scales are interesting and worth while, but they in no manner lessen *the necessity for carefully choosing, defining, and weighing the aspects of teachers and teaching considered in such instruments of measurement* [41]

Diagnostic scales A diagnostic scale is a point scale organized around the different aspects of teaching in such a manner as to reveal levels of attainment with reference to the different characteristics ordinarily associated with teaching success An excerpt from the Torgerson Diagnostic Teacher Rating Scale given below will illustrate this type of scale [42]

1 Assignment
   - *a* Indefinite assignment
   - *b* Number of pages in a textbook
   - *c* Topical assignment from textbook
   - *d* Problem assignment
   - *e* Problem project or unit assignment

2 Discussion Period
   - *a* Class discussion limited to brightest pupils
   - *b* Entire class participates in the discussion
   - *c* Class discussion shows lack of purpose
   - *d* Pupils take no active part in the discussion
   - *e* Discussion period seldom provided

3 Pupil Diagnosis
   - *a* Only class difficulties analyzed
   - *b* Only obvious difficulties of class given any attention
   - *c* Special attention given to retarded pupils only
   - *d* Individual pupil difficulties basis for all reviews and remedial teaching
   - *e* No attempt to analyze pupil or class difficulties

4 Remedial Instruction
   - *a* Reviews and reteaching based upon individual pupil difficulties
   - *b* No reviews or reteaching provided
   - *c* Class reviews with additional help for dull pupils
   - *d* Occasional class reviews
   - *e* Carefully prepared program of class reviews

[41] H C Almy and Herbert Sorenson A Teacher Rating Scale of Determined Reliability and Validity, *Educational Administration and Supervision*, Vol 16 (March, 1930) pp 179 186

[42] Torgerson Diagnostic Teacher Rating Scale (Bloomington Ill, Public School Publishing Co 1930)

5 Drill Material

a Teacher makes up drill material to supplement textbook
b Drill material rarely ever used
c Available standardized practice exercises always used
d Only drill material provided in text used
e Standardized practice exercises used at times

The Torgerson Diagnostic Teacher Rating Scale is composed of eighteen items, as follows assignment, discussion period, pupil diagnosis, remedial instruction, drill material, measurement of individual differences, provision for individual differences, technique of measuring results, sequence of topics, types of criticism pupil attention, results of motivation upon pupils, pupil activity, attention to heating, lighting and seating, use of instructional materials, control over pupils, method of handling problem cases in discipline, and corrective measures Though by no means a perfect instrument of analysis, the Torgerson scale does represent a promising development in this field

Quality scales A quality scale is one in which the different degrees of teaching merit, each described in terms of its characteristic aims, methods, and procedures, are arranged at equal intervals according to a system of scale values from zero merit to perfection The method of constructing these scales is similar to that used in constructing handwriting, art and composition scales The scales by Brueckner,[43] Mead,[44] and the Committee on the Evaluation of Instruction of the Department of Classroom Teachers[45] are of this sort An excerpt from one of Brueckner's scales (the compulsion type) for evaluating the teaching of geography in grades five and six is reproduced here [46]

SAMPLE FROM BRUECKNER'S SCALE FOR THE RATING OF TEACHING SKILL
TYPE I Compulsion

The subject-matter is organized wholly in terms of logical arrangement usually of textbook arrangement It is presented either orally or by text with or without some explanation by the teacher Pupils are expected to study same and learn it by heart The recitation consists in having the children give back what they have learned Usually the form in which it is given must be exactly that of the text Much dependence is placed on repetition review and drill There is complete teacher domination and control and almost perfect attention because of rigid discipline maintained by teacher by force Results in terms of knowledge are emphasized Respect and unquestioning obedience are demanded of children

[43] L J Brueckner Scales for the Rating of Teaching Skill *Educational Research Bulletin,* No 12 (Minneapolis Minn University of Minnesota 1927)

[44] Cyrus D Mead 'Scaling Lesson Taught" *Journal of Educational Method,* Vol 6 (November-December, 1926) pp 115 119 168 174

[45] Guy M Wilson chairman Report of the Committee on Evaluation of Instruction of the Department of Classroom Teachers of the National Education Association, *Proceedings* of the National Education Association 1927

[46] Brueckner Scales for the Rating of Teaching Skill *op cit,* p 12 16

Teacher A *Scale Value 16 2*

The teacher was a rigid disciplinarian Every child was compelled to keep in perfect order, to sit rigidly in the standard position, to pay absolute attention to everything that was said, and to strive to acquire perfection in all his work

Every child worked during his study period at his top speed, because the lessons assigned were generally sufficiently long to require it, and the compelling force back of the command made by the teacher to know these important facts served to make everyone sit up and concentrate on what he was doing On the other hand, if the material was difficult, the lessons assigned were short, so that it was possible to learn them

Papers were marked with care, every *i* not dotted and every *t* not crossed being noted and later corrected by the pupil Answers to questions which were not in the exact language of the book were counted wrong, and there were no supplementary readings or discussions Any child could ask any formal question he wished about anything he did not understand but the question had to be asked during the study period, not during the recitation

The teacher was absolutely fair and impartial, knew every pupil's weakness and success held herself up to the standards set for the class Deliberate misbehavior was sure to receive swift and vigorous corporal punishment, failure to learn meant additional drill

There was much well organized drill and review Class questioning was vigorous and snappy and enjoyed by the entire class When the study of France was concluded, the children could answer any question on the continuous list which the teacher had given, without hesitation, and with no deviation from the words of the text

Teacher C *Scale Value 11 5*

The teacher has assigned the subject matter on France logically according to the textbook, stating emphatically that the facts were to be memorized as they were found in their geographies Cities rivers and mountains were to be located on their maps and the list of questions in the book was to be used for drill work

The next day the questions were asked rapidly and methodically with no explanations by the teacher Children who timidly raised their hands for help were ignored The drill and review work were enjoyed by most of the pupils, and although quite well organized this part of the lesson was hurried through so rapidly that the slower pupils failed to profit by it They became a source of annoyance until the most persistent of them were dismissed from the room

During the class period most of the children were interested and alert and were able to give back the main facts of the lesson with a good measure of accuracy The posture of the children was excellent, and the lesson proceeded with snap and precision

Teacher E *Scale Value 9 8*

'For the next assignment take pages 118-119, and be ready to answer questions 10 to 20 particularly emphasizing 11 14 16, and 18 Look up difficult words in the dictionary and refer to the large map of France in the textbook in locating places wanted in your reading

Three or four pupils whose inattention the teacher failed to check were required to get their assignment from their neighbors No connection was made between the previous lesson and the new assignment

The teacher deviated occasionally from the logical order due to lack of preparation on her part thus confusing several of the pupils, and as a result time was wasted in getting back on the track All questions were stressed alike in spite

of the fact that she had asked the pupils to pay particular attention to certain definite ones No reference was made to the map and dictionary assignment She stated that answers must be in the exact words of the book, but in four or five instances let inaccuracies slip by A fair amount of drill was given over part of the work

She asked questions of most of the pupils, but never worried if she failed to reach three or four of the same pupils each day Seven or eight of the pupils failed to answer the questions they were asked, and only in two instances did she find out their difficulties Instead they were marked zero, and someone else was called upon to give the answer Two pupils were corrected, one for not standing on both feet the other for leaning on the desk but no attention was given to incorrect sitting posture of the other children

At least three-fourths of the class were attentive during the whole period and these learned some answers to most of the questions in the lesson There was a strong bond of sympathy between the bright pupils and the teacher but little attention was paid to the lower group and as a result these pupils came to class reluctantly

Teacher G *Scale Value 7 1*

The teacher after reminding her 6A geography class that this was their last lesson in the study of France said 'Complete yesterday's lesson and begin with paragraph No 1 on page 64 and finish the chapter

During the recitation the pupils of the class who had recited the previous day and knew that they would not be called upon today slouched in their seats and made no attempt to follow the work The teacher was constantly nagging at the pupils who failed to respond but gave them no help Because of this a few pupils disliked her and created as many difficulties as they dared She meant to be fair in her decisions but in her carelessness she blamed the children for things which they did not do The drill was very ineffective because it met the needs of so few of the pupils

The results of the work were general ideas about France and a large mass of vague and often inaccurate information

Teacher I *Scale Value 5 0*

The class had one more day to complete the study of France

Get out your books and begin where we left off Several pupils who did not seem to know where the point was was wasted most of the study period thumbing through their texts because they were afraid to disclose this fact to the teacher and dared not ask a neighbor

During the recitation that followed the textbook map-question list furnished the line of least resistance for the teacher She attempted to ask the questions in their logical order Frequently she lost her place or asked the same question twice, because it was often necessary to stop the lesson to check disorder in the class, which occurred when she was off her guard Then to save time, she skipped two pivotal questions around which the subject was organized with the remark, "We haven t time to take that up now

Not once was the map on the wall referred to by either teacher or pupils No attempt was made to check the pupils' answers as she scarcely waited for them to reply until another point was taken up Hence many inaccuracies crept in

Several pupils who failed to answer any questions were given no help, and her only comment was, It s your own fault, you should never have been promoted to this grade anyway

After many interruptions and outbursts of disorder the work was only partially covered

The entire class had a "don t care" attitude, and even the bright pupils gained only a vague and inaccurate notion of far away France

Brueckner's scales were developed in accordance with Courtis' suggestion that more reliable rating scales might be developed if rating scales were constructed that differentiated between the teacher's method of teaching and his skill in utilizing these methods This is an important point As has been repeatedly pointed out in this discussion, the evaluation of teaching is a very complex activity By and large the evaluation of teaching has not been very well handled One of the many sources of confusion has to do with the failure of many evaluators to differentiate between the method *per se* as distinguished from control over method An ineffective teacher may have a good method and handle it poorly, or a poor method which she handles reasonably well It would seem that our thinking about teaching has been considerably sharpened by a distinction of this sort

Man-to-man comparison scales On a man-to-man comparison scale the judgments about the degree of control exercised by the teacher over the different qualities selected for consideration are derived by comparisons between the teachers rated and named individuals previously judged by the raters to be average, inferior, superior, or what not In general, merit ratings of the teacher's ability are arrived at by comparing the teacher to be rated with the rater's personal standards of teaching ability Because of its direct comparison features, the human scale furnishes a fairly objective mode of rating teachers Its chief limitations lie in the difficulty of administering such a scale because of the personal element and in the lack of commonly accepted standards The number of qualities considered in such scales is usually small In the illustrative scale on page 368, ten qualities are considered vitality, general personality, dynamic personality, growth and progressiveness, team work, attitude toward children, preparation, skill in control and management, skill in teaching (technique), and skill in teaching (results) The scale possesses limited diagnostic possibilities

Conduct or performance scales Connor, a number of years ago, after presenting an analysis of current methods of rating teachers, suggested that teaching and not teachers be rated, and that teaching should be measured in terms of results only He suggested seven standards of pupil performance as measures of teaching efficiency (1) thinking, (2) emotional reaction, (3) knowledge and skill, (4) morale in dispatch of work (5) initiative in socially significant situations, (6) ethical self-control in situations socially significant, and (7) deportment Each standard is defined, and a number of concrete acts representative of the standard are given An excerpt from this scale is given on page 369 [47]

[47] W I Connor, 'A New Method of Rating Teachers,' *Journal of Educational Research*, Vol 1 (May, 1920) pp 338 358

MICHIGAN EDUCATION ASSOCIATION

TEACHER RATING CARD—Long Form

HUMAN SCALE METHOD

Teacher _____ Experience _____ Years. Building or Department _____

Quality Groups		1	2	3	4	5	6	7	8	9	10
Letters or Scale Words Indicating Degrees of Quality	Points Assigned to Scale Steps	Vitality	General Personality	Dynamic Personality	Growth and Progressiveness	Team Work	Attitude Toward Children	Preparation	Skill in Control and Management	Skill in Teaching (Technique)	Skill in Teaching (Results)
A or Very Superior	50										
B or Superior	40										
C or Average	30										
D or Inferior	20										
E or Very Inferior	10										

DIRECTIONS. Use of the human scale is strongly urged (See III and IV on the reverse side of this card) After determining the degree of merit in each quality group place a dot in each vertical column opposite the proper degree of capability as indicated by the scale words in the lefthand column (The horizontal lines not the space between them indicate the steps of the scale No dot should ever be placed in the space above the line of the scale step Very Superior as that line represents a perfect score) Connect the dots by lines If it is desired to weigh qualities double the number of points in groups 7 and 8, and quadruple the number in groups 9 and 10 Interpret the total score as follows 180-299 E or very inferior 300-479 D or inferior 480-659 C or average, 660-839, B, or superior 840-900 A or very superior 900 perfect score

Total Numerical Rating (1) (2) (3) General Rating (1) (2) (3) Date (1) (2) (3) Principal or Supervisor _____

Note —The general rating Average may be designated 'Fair or Good accordingly as it may be low average or high average.

SAMPLE SCORE CARD OF THE HUMAN SCALE METHOD

From A S Barr *An Introduction to the Scientific Study of Classroom Supervision* (New York D Appleton Century Company Inc 1931) p 352

SAMPLE FROM THE CONNOR RATING SCALE

IV MORALE IN DISPATCH OF WORK

General definition Confidence, courage, loyalty self reliance, promptness, and persistence with which work is performed *Definition of Standard* Confident, courageous, loyal, self-reliant, prompt and persistent spirit of pupils at work

Standard II Morale

1 Attends school regularly and arrives promptly at the opening of each session
2 Is cheerful and agreeable when he cannot have his own way
3 Moves to and from classes and about halls in a prompt and orderly manner
4 Is loyal to teachers and the work they assign
5 Is loyal to school officers and rules they make and enforce
6 Is loyal to the school and its undertakings
7 Obeys all ordinary requests promptly and cheerfully and in spirit as well as letter
8 Does not talk back or sulk when corrected
9 Does not fret or worry over school tasks but seeks to understand them and does his best cheerfully
10 Does not cry whine or tattle over little things
11 Is not discouraged by defeat or failure
12 Does hard or otherwise disagreeable work without expectation of praise
13 Works in the confidence that he and his classmates can do what other boys and girls have done and are doing and a little more
14 Relies upon his own efforts in preparing a lesson
15 Undertakes with courage work he knows to be difficult
16 Finishes assigned lessons even if he is compelled to spend more time on them than some of his brighter classmates
17 Begins work promptly and plunges into the heart of it
18 Faces duties and responsibilities squarely—does not sidestep or 'pass the buck
19 Does not hunt for and elect supposed 'snap courses
20 Is conscious of some of the important habits which go to make up a worthy character, and strives to act so that these habits will be formed

A conduct scale of a somewhat different sort is that proposed by Collings for measuring the effectiveness of instruction by the project method The scale is composed of thirteen activity traits, as follows initiation of goal, evaluation of goal, choice of goal, initiation of means, evaluation of means choice of means organization of means execution of means, initiation of improvement, evaluation of improvement, choice of improvement consummation of improvement, and leading to further goals An explanation, several illustrations, and tests are given for each activity trait An excerpt from this scale is given below [48]

[48] Ellsworth Collings *School Supervision in Theory and Practice* (New York, Thomas Y Crowell Company 1927) p 5 (See also pp 121 151)

SAMPLE FROM THE COLLINGS SCALE

ACTIVITY TRAIT I Initiation of Goal

I *Explanation* Initiation of goal includes children suggesting the goal they wish to pursue whether it be an individual or group activity

II *Illustration* "Pshaw I m so tired remarked James (near the close of the story conference) We've been telling stories so long

Let's play Roly Poly' suggested John I m tired too My feet have gone to sleep

Gosh John that s what I want to play too interrupted Lonnie 'I bet I can win

'Shame, Lonnie don t you know what mamma said she d do if you didn t quit saying that word scolded Jennie I d like to play volley ball"

'Say, kids I'll tell you what let s do exclaimed Mary Let s dramatize the Gingerbread Boy story I just hate old Roly Poly

'Shucks, Mary ill you c m think about is old stories retorted Bill I'd like to play a game of town ball

III *Tests* Does each child exhibit any one of the following?

1 For drive in initiation goal
   a Voluntary proffering a particular goal
   b Outside compulsion in proffering a particular goal
2 For response in initiation of goal
   a Overt proffering a particular goal
   b Non proffering a particular goal

Yet another approach to performance has been made by Barr in the Barr-Harris Teachers Performance Record[49] A record is first made of performance teacher and pupil activities purposes and conditions, then the performance is evaluated with reference to teacher and pupil purposes, accepted principles of learning and teaching pupil growth, learning and achievement and conditions The recording of the facts relative to the learning teaching situation is thus separated from the evaluation The scale is an attempt to have the evaluation of teachers and teaching conform to some of the points of policy discussed earlier in this chapter An interesting and very much simpler application of the same idea will be found in the Wisconsin Adaptation of the M Blank The evaluation is organized around eight questions (1) Is the teacher well prepared? (2) Has the teacher the personal prerequisites essential to effective work? (3) Are the goals and objectives set by teacher and pupil satisfactory? (4) Are the observed teacher and pupil activities well chosen? (5) Does the teacher show skill in directing activities? (6) Are the learning aids adequate and effectively used? (7) Are methods of checking results satisfactory? (8) Is there evidence of desirable pupil growth and achievement? An excerpt from the scale is reproduced below[50]

[49] A S Barr and A F Harris, Barr Harris Teachers Performance Record *Journal of Experimental Education*, 1943

[50] *Evaluative Criteria op cit* The numbers are those from the original scale

1 Is the teacher well prepared?
( ) In general, academically culturally, professionally
( ) For the day's work or activity observed

Anecdotal evidence *Comments*

Evaluation (underline one)
Outstanding above average average below average poor

4 Are the observed teacher and pupil activities well chosen?
( ) *a* Are they in keeping with stated goals, purposes and objectives?
( ) *b* Are they in keeping with limiting aspects of the learning teaching situation?
( ) *c* Are they in keeping with accepted principles of learning and teaching?

Anecdotal evidence *Comments*

Evaluation (underline one)
Outstanding above average, average below average, poor

8 Is there evidence of desirable pupil growth and development?
( ) *a* In interest and application
( ) *b* In work habits
( ) *c* In pupil growth and achievement

Anecdotal evidence *Comments*

Evaluation (underline one)
Outstanding above average average below average poor

A very much simpler and yet very effective approach has been made by Sister M Xavier (See table on page 372) She attempts to introduce more objectivity into the evaluation of teaching through the application of principles to concrete learning and teaching situations Although the principles of good teaching considered in this application are described only briefly and in only moderately objective terms, the results secured from the investigation seem to indicate that a device such as that employed in this study will increase the objectivity of the rating

In looking back over the discussion of rating scales one can see that many different approaches have been made to the study and improvement of teaching Each approach has its advantages and disadvantages We believe that if the interrelatedness of the several factors in the learning teaching situation is to be understood, all of these approaches need to be made We need to know results But we need to know, too, the situation, the kinds of teacher and pupil activity that precede the results, and the sort of persons involved—their qualities as persons and their mental prerequisites to effective performance We wish to emphasize that

An Analysis Chart for Evaluating Some Observable Factors in the Teaching Learning Act *

The Chart Shows the Five Levels of Each of the Seven Factors

Factors	Inferior 1	Below Average 2	Average 3	Above average 4	Superior 5	EVALUATION
A *Is there evidence of a definite and carefully planned procedure for directing learning?*	An indefinite procedure for providing necessary information and material	A definite usable plan for providing only necessary information and material	A definite usable plan for providing necessary and supplementary information and materials	A definite plan to achieve desirable attainable goals	A definite highly flexible plan to achieve desirable attainable goals and to investigate pupil needs and abilities	1 2 3 4 5 *No opportunity to observe*
B *Does the teacher locate quickly and correctly the necessary point of contact with the learner?*	Insensitive to individual or group difficulties	Senses the group difficulties only	Senses the group and also individual difficulties	Senses the specific pupil difficulty of group and also of the individual	Anticipates specific pupil difficulties through evaluation of previous pupil responses	1 2 3 4 5 *No opportunity to observe*
C *Does the teacher guide the learner in the solution of the difficulty?*	Neglects both the individual and group difficulties	Revises procedure on basis of group difficulties	Revises procedure on basis of both individual and group difficulties	Provides remedial work to aid in the solution of specific pupil difficulties	Guides pupils in thinking ways and means to solve their own specific difficulties	1 2 3 4 5 *No opportunity to observe*
D *Is there evidence of desirable teacher-pupil relationships?*	Absence of desirable teacher pupil relationships	Desirable teacher pupil relationship present in a slight degree	Desirable teacher pupil relationship present in a moderate degree	Desirable teacher pupil relationship present in a considerable degree	Desirable teacher pupil relationship present in a marked degree	1 2 3 4 5 *No opportunity to observe*
E *Is there skill in the use of the vernacular?*	Inaccurate in speech or indistinct in enunciation	Speaks correctly and distinctly but without animation	Speaks correctly distinctly and forcefully	Speaks correctly distinctly with color and force	Speaks fluently with precision color force and simplicity	1 2 3 4 5 *No opportunity to observe*
F *Is there an established control technique?*	Mechanical details overemphasized or totally neglected No pupil initiative Pupil initiative not balanced by social responsibility	Mechanical details handled efficiently by teacher Limited pupil initiative but balanced by social discipline	Mechanical details under teacher guidance but pupil control Marked pupil initiative balanced by social discipline	Mechanical details under pupil guidance and pupil control Pupil initiative and responsiveness in efficient group work	Mechanical details under efficient pupil guidance and pupil control Pupil initiative and control in group work	1 2 3 4 5 *No opportunity to observe*
G *Is there evidence of pupil growth toward desirable and attainable goals?*	Evidence of pupil growth in the acquisition of necessary information	Evidence of pupil growth in the acquisition of necessary and supplementary information	Evidence of pupil growth in the ability to secure and to organize materials while acquiring information	Evidence of pupil growth in analyzing problems and in locating and utilizing materials in solving problem	Evidence of pupil growth in originating and interpreting problems and in utilizing learned techniques in new situations	2 3 4 5 *No opportunity to observe*

* Sister M Xavier Higgins *Reducing the Variability of Supervisors Judgments An Experimental Study* Johns Hopkins University Studies in Education No 23 (Baltimore, Md The Johns Hopkins Press 1939)

important as performance is, to improve it we must know more than we ordinarily do about the sort of person involved and the mental prerequisites to efficient performance Anyone who evaluates teaching should be concerned with both on-the-scene activity and background information

A note on the validity and reliability of teacher rating scales The scales referred to in the immediately preceding sections of this chapter have been chosen principally because they illustrate ways of appraising teaching All have been subjected however to systematic study and although some meet the statistical tests of validity and reliability better than others they all meet these tests better than do general merit ratings In some instances the increased efficiency is as much as 1300 per cent Most of these scales are accompanied by a teachers manual that supplies, among other things, data relative to the methods by which each was validated Detailed data on the statistical validity and reliability of a number of these scales are presented by Barr and others[51] in the references here cited

SECTION 10

TESTS OF DIFFERENT ASPECTS OF TEACHING ABILITY

Tests of teaching aptitude Another means of collecting data relative to the teacher factors that condition pupil growth and one the use of which has grown rapidly during the last ten years is that of tests of qualities commonly associated with teaching success Much remains to be done in this field but tests have already appeared which measure in a manner many of the qualities that condition teaching success One of the earliest tests to be published in this field was the Knight[52] test of teaching aptitude A revised form of this test was prepared by Bathurst, Knight, Ruch, and Telford[53] Other tests of teaching aptitude have been developed by Coxe and Orleans[54] by Moss, Hunt, and Wallace,[55] and by Jensen[56] These tests are now a number of years old and of interest

[51] A S Barr T L Torgerson and others The Validity of Certain Instruments Employed in the Measurement of Teaching Ability *The Measurement of Teaching Efficiency* by William H Lancelot and others (New York The Macmillan Company 1937)

A S Barr and others *The Measurement of Teaching Ability*, Experimental Education Monograph (Madison Wis Dembar Publications Inc 1945)

[52] F B Knight *Qualities Related to Success in Teaching*, Contributions to Education No 120 (New York Bureau of Publications Teachers College Columbia University 1922)

[53] J T Bathurst F B Knight and others, Aptitude Tests for Elementary and High School Teachers (Washington D C Bureau of Public Personnel Administration 1927)

[54] W W Coxe and J S Orleans Coxe Orleans Prognosis Test of Teaching Ability (Yonkers on Hudson N Y World Book Company 1930)

[55] I A Moss T Hunt and F C Wallace Teaching Aptitude Test George Washington University Series (Washington, D C Center for Psychological Service 1927)

[56] Milton B Jensen Stanford Educational Aptitudes Test (Stanford University Calif Stanford University Press 1928)

chiefly for historical reasons They have been classified as aptitude tests, but most of them require a certain amount of knowledge of professional education

Tests of professional information There are now available in the literature of education a rather large number of tests of professional information and achievement The reader may find interesting and worthy of study the tests of Lewerenz and Steinmetz,[57] Van Hosen,[58] Odell and Herriott [59] Weber,[60] Flanagan and others,[61] and Harnly [62] The Lewerenz and Steinmetz Orientation Test is composed of seven sub-tests relative to the commonly accepted objectives of education (1) health, (2) education (3) worthy home membership (4) vocation (5) civic education, (6) worthy use of leisure time, and (7) ethical character People known to be superstitious and dogmatic receive low scores individuals who have a scientific outlook and an open mind receive high scores Van Hosen's Comprehensive Examination in Education designed primarily for junior and senior high-school teachers is a subject matter test over the following fields educational psychology principles of education, educational applications, history of education, and philosophy of education The test by Odell and Herriot is a test of principles of teaching, that by Weber a test of aims, attributes, and functions of secondary education

One of the most pretentious undertakings in this area is the National Teachers Examinations [63] developed by the American Council on Education This test aims to test reasoning ability, reading comprehension skill in English, cultural background, knowledge of the child, pedagogical facts and principles, contemporary affairs, and the subjects to be taught Another instrument of somewhat different sort in this area is that developed by Harnly [64] He attempted to measure a number of different aspects of teaching including the choice of purpose, content, and method

Tests of social behavior Teaching is above all a very human activity, and many persons believe that the most important element in a teaching

[57] Alfred S Lewerenz and Harry C Steinmetz Orientation Test Concerning Fundamental Aims of Education (Revised Hollywood Calif California School Book Depository 1935)

[58] Ralph Van Hosen Comprehensive Examination in Education Forms A and B (Ann Arbor Mich Ann Arbor Press 1929)

[59] C W Odell Standard Achievement Tests on Principles of Teaching in Secondary Schools Form 1 (Bloomington Ill Public School Publishing Co 1925)

——— and M F Herriott, Standard Achievement Test on Principles of Teaching in Secondary Schools Form 2 (Bloomington Ill Public School Publishing Co 1926)

[60] Joseph J Weber Standard Achievement Test on Aims Purposes Objectives Attributes, and Functions in Secondary Education Form A (Bloomington Ill, Public School Publishing Co)

[61] John C Flanagan, A Preliminary Study of the Validity of 1930 Edition of the National Teachers Examinations, *School and Society*, Vol 54 (July 1941), pp 59 64

[62] Paul W Harnly 'Attitudes of High School Seniors Toward Education, *School Review* Vol 47 (September, 1939), pp 501 509

[63] *Op cit*

[64] Harnly *op cit*

situation is the human element involved in teacher-pupil relationship [65] One of the earliest and most generally used tests in the field was the George Washington University Social Intelligence Test [66] Another test of considerable promise in this area is the test of Theory and Practice of Mental Hygiene [67] by T L Torgerson, B R Ullsvik, and L F Wahlstrom This test is a measure of teacher-pupil relationships from the mental-hygiene point of view A review of the more important developments in this field can be found in Murphy, Murphy, and Newcomb *Experimental Social Psychology* [68]

Tests of the attitudes of teachers Three very interesting tests have appeared in this field It is sometimes said that the most important thing to know about an individual is his philosophy of life Though such a test is not available Raup, Peterson and Williamson [69] have produced a test of the teacher's philosophy of education Several points of view are measured in this test (1) the static-dynamic point of view, (2) the academic-direct life point of view, (3) the science philosophy point of view, (4) the individual social point of view, (5) the heredity-environment point of view, (6) the passive active point of view, and (7) the separate mind naturalistic point of view Another test of considerable interest in this field is the test of Social Attitudes of Secondary-School Teachers prepared under the auspices of the Yearbook Committee of the John Dewey Society for the Study of Education and Culture [70] The test is in four parts Part I 106 items, aims to measure the subject's attitude toward controversial issues, Part II, an essay test asks the examinee to describe in some detail his notion of an ideal society Part III one hundred items aims to measure the examinee's attitudes toward various issues of public concern, Part IV consists of a personal data sheet A third test of quite a different sort falling in this field is the Yeager Scale for Measuring Attitudes toward Teachers and the Teaching Profession [71] This test is composed of 44 items to be answered agree (+) disagree, (o), and doubtful (?) Besides these there are available in the literature of education, psychology, and sociology numerous other tests designed to

[65] M I Haggerty Crux of the Teaching Prognosis Problem *School and Society*, Vol 35 (April 1932) pp 515 519

[66] F A Moss and others Social Intelligence Test (Washington, D C, Center for Psychological Service 1930)

[67] T L Torgerson and others Theory and Practice of Mental Hygiene" unpublished materials University of Wisconsin Madison Wis 1937

[68] Gardner Murphy, Lois Barclay Murphy and Theodore M Newcomb, *Experimental Social Psychology* (New York Harper & Brothers, 1937) pp 769 888

[69] R B Raup and others *Teachers' Views on Some Problems in General Educational Theory* (New York Bureau of Publications Teachers College Columbia University 1931)

[70] W H Kilpatrick and others *The Teacher and Society, First Yearbook* of the John Dewey Society (New York D Appleton Century Company, Inc, 1937) pp 180 189

[71] Tressa C Yeager Scale for Measuring Attitude Toward Teachers and the Teaching Profession from *An Analysis of Certain Traits of Selected High School Seniors Interested in Teaching* Contributions to Education No 660 (New York, Bureau of Publications Teachers College, Columbia University, 1935)

measure the attitudes of adults on various problems An excellent discussion of these tests will be found in *Experimental Social Psychology* by Murphy Murphy and Newcomb [72]

Tests of personality factors in teaching success One of the earliest tests developed in this field for use with teachers is the Morris Trait Index L [73] This test is composed of six sections (1) likes and dislikes for different activities, five responses, forty six items, (2) choice of comments for different kinds of pupils, six responses, fourteen items, (3) characterization of typical situations is amusing, embarrassing necessitating firm control interesting or necessitating correction of mistake, five responses seventeen items, (4) selection of best response to typical situations four responses, twelve items (5) a five-step true-false test about various items of personal interest, five responses forty-one items and (6) a feelings test about school situations six responses seven items There is no definite time limit An excellent summary of the instruments available for the study of adult personality may be found in *Experimental Social Psychology* by Murphy Murphy, and Newcomb [74]

Tests of other qualities commonly associated with teaching success The mental capacity of the teacher can be determined through the application of any one of a number of tests of mental ability The American Council on Education [75] Psychological Examination prepared by Mr and Mrs Thurstone [76] will be found to be particularly useful in this field The National Teachers Examination [77] has in addition to the test of professional information sections on reasoning knowledge of contemporary affairs, reading comprehension skills in expression general culture, and mastery of subject matter that supply valuable information relative to the intellectual and cultural backgrounds of teaching candidates Advanced subject-matter tests in the several areas of learning can be employed to determine the teacher's academic preparation There are several good tests now available for measuring general culture background [78] Miss Esther Hult [79] has developed a test of professional judgment

The most accurate measure of the teacher's health will probably be

[72] Murphy Murphy and Newcomb *op cit* pp 889 1016

[73] Elizabeth H Morris Morris Trait Index L (Bloomington Ill Public School Publishing Co , 1929)

[74] Murphy Murphy and Newcomb *op cit* pp 769 888

[75] Gertrude H Hildreth *A Bibliography of Mental Tests and Rating Scales* (New York The Psychological Corporation 1933)

[76] L L Thurstone and Thelma G Thurstone, American Council on Education Psychological Examination (Washington D C American Council on Education)

[77] David G Ryans Measuring the Intellectual and Cultural Backgrounds of Teaching Candidates *Measurement and Guidance*, Vol 1, No 1 (New York Cooperative Test Service 1941)

[78] E F Lindquist and others General Culture Test (New York Cooperative Test Service 1936)

[79] Esther Hult, *A Study of the Effectiveness of Instruction in the Nature and Direction of Learning*, unpublished Doctors Dissertation, University of Wisconsin 1943

found in a thorough medical examination that gets at underlying conditions and energy output

Advanced subject matter tests in the several areas of learning can be employed to determine the teacher's academic preparation

The general situation with reference to the use of tests to measure teaching efficiency The foregoing discussion is by no means complete, but it is hoped that enough has been said to indicate the more important developments in this area The tests cited vary greatly in practical value and statistical validity, but they all illustrate important new approaches to the analysis of teaching ability In offering this list of tests it is not thought that they will be extensively used by supervisors and administrators except possibly in extreme cases of malperformance They may, however, find rather extensive use among teachers who desire more information relative to their own abilities in various respects Combinations of these measures have been found to correlate highly with teaching efficiency [80]

SECTION 11

QUESTIONNAIRES INTERVIEWS, AND INVENTORIES

Questionnaires, inventories, and interviews widely used Closely related to the tests of qualities commonly associated with teaching efficiency discussed in the preceding section are the rather large number of standardized questionnaires, inventories, and interviews now available for use in the collection of information relative to a number of aspects of teaching efficiency

Waples [81] made extensive use of the questionnaire and interview techniques in discovering the problems and difficulties of teachers In his *Research Methods and Teachers' Problems* he and Tyler set forth a whole scheme of informal research by which the teachers' problems might be discovered and solved The procedure outlined by them occupies a position somewhere between the teacher's offhand solution of difficulties and more accurate methods of research The volume is one that contains useful material on both the discovery and the solution of teaching problems, and is thus recommended to those who wish to approach the study of the teacher at work from a study of the needs sensed by the teacher The methods of making such analyses are worthy of careful consideration Barr and others [82] report the use of a standardized interview to secure information relative to such important matters as (1) reasons for choosing teaching as a vocation, (2) interest in children, teaching, and the subject to be taught, (3) willingness to accept the personal, social, and financial

[80] Barr and others, *The Measurement of Teaching Ability*, *op cit*

[81] Douglas Waples and Ralph W Tyler *Research Methods and Teachers Problems* (New York, The Macmillan Company 1930)

[82] A S Barr and others *Wisconsin Study of Teaching Ability* (Madison Wis University of Wisconsin Press, 1947)

rewards associated with teaching, (4) interest in the service and reformational possibilities of teaching, (5) concern with social problems and issues, (6) emotional balance and adjustment to conflict, (7) relations with others (children, contemporaries, and adults), (8) work habits and energy patterns, (9) recreational interests and activities, (10) physical health, energy, and drive, (11) initiative, originality, and creativeness, and (12) future plans and ambitions

Two inventories not particularly designed for use with teachers but nevertheless quite valuable for this purpose are the Personality Inventory by Robert G Bernreuter [83] and the Social Adjustment Inventory by J N Washburne [84] There are many other tests

SECTION 12

MEASUREMENT OF PUPIL CHANGE AS A MEANS OF EVALUATING TEACHING EFFICIENCY

The use of measures of pupil change as a means of studying the teacher at work Another means of studying the teacher at work is the measurement of the changes produced in the pupils

McCall pointed out some years ago that the ultimate criterion of teaching success is the number, kinds, and amounts of desirable changes produced in pupils [85] If this approach is made to the measurement of teaching ability, it should be remembered that certain important assumptions have been made Two are noted here (1) It is assumed that we possess adequate measures of the major changes produced in pupils Excellent progress has been made in the development of new means of appraising pupil growth, but in no sense can the data gathering devices now available in this field be said to be adequate (2) It is assumed that factors other than teaching ability can be controlled, equated, or otherwise held constant as in experimental research Teaching is only one of the several factors conditioning the changes produced in pupils If the gains in test scores for one teacher are to be compared with those of another, those factors other than teaching ability affecting the products of learning must be controlled, equated, or otherwise held constant, as in experimental research This latter condition is sometimes not possible in research conducted in school situations

The use of measures of pupil growth in evaluating the efficiency of teachers is an exceedingly difficult process Although the method is theoretically sound, more harm may be done than good unless it is applied with great care Whether or not measures of pupil growth should

[83] Robert G Bernreuter The Personality Inventory (Stanford University, Calif Stanford University Press)

[84] J N Washburne The Social Adjustment Inventory (Syracuse N Y Syracuse University)

[85] William A McCall, *How to Measure in Education* (New York The Macmillan Company 1922) pp 150 152

be used by administrative officials to evaluate the efficiency of instruction will depend upon (1) the attitude of the teaching corps, (2) the kinds of measures that are available, and (3) the care with which data are collected and the results interpreted As instruments of measurement become more refined, one would expect that the more efficient teachers might demand, of their own accord, that they be evaluated in terms of the number of desirable changes produced by them in pupils instead of the less accurate and subjective methods now generally in use

With this idea in mind, McCall enumerated ten fundamental assumptions underlying a scientific procedure for rating and promoting teachers These assumptions are exceedingly suggestive and are given here [86]

1 The pupil is the center of gravity or sun of the educational system Teachers are satellites of this sun and supervisors are moons of the satellites
2 All the paraphernalia of education exist for just one purpose, to make desirable changes in pupils
3 The worth of these paraphernalia can be measured in just one way, by determining how many desirable changes they make in pupils
4 Hence the only just basis for selecting and promoting teachers is the changes made in pupils
5 Teachers are at present selected and promoted primarily on the basis of their attributes, such as intelligence, personality, physical appearance, voice, ability in penmanship, and the like
6 No one has demonstrated just what causal relationship, if any, exists between possession of these various attributes and desirable changes in pupils
7 Scientific measurement itself is fair only when we measure the amount of desirable *change* produced in pupils by a given teacher The measurement of *change* requires both initial and final tests The plan outlined below provides for these
8 Scientific measurement is fair only when we measure amount of change produced in a standard time This requirement can be satisfied
9 *Scientific measurement is fair only when we measure the amount of* change in *standard pupils*
10 Scientific measurement is fair only when the measurement is complete Absolute completeness would require a measurement of the amount of changes made in children's purposes, attitudes, interests, appreciations, and all around development as well as their abilities Absolute completeness is, of course, impossible and is in fact not necessary partly because a chance sampling of the changes made will be thorough enough and partly because teachers skill in making desirable changes in, say, reading is probably positively correlated with their skill in making desirable changes in say, arithmetic

McCall has presented in this list some of the more important assumptions that are made in the use of measures of pupil growth as an index of teaching efficiency If the precautions there suggested are kept in mind, the pupil-growth index of teaching efficiency holds considerable promise

[86] McCall, *op cit*, pp 150 152 By permission of the Macmillan Company, publishers

not only for evaluating efficiency but for the study of the relationship of various teacher factors to pupil growth For illustrative materials both on the use of pupil growth as an index of teaching efficiency and on the relationship of various teacher factors to teaching efficiency, the reader is referred to Barr and others *The Measurement of Teaching Ability* [87]

The statistical treatment of change scores We have indicated briefly in the immediately preceding paragraphs some of the more important assumptions underlying the use of measures of pupil growth as indices of teaching efficiency Not only must the data be collected with great care but they must have adequate statistical treatment It is not within the scope of this volume to discuss the intricacies of correct statistical procedure, but we would like to suggest that what is done should be done with great care Dependable results will be had only when such is the case

Derived measures of teaching efficiency Besides the pupil change scores discussed above a number of derived measures of teaching efficiency have been developed In one of the early studies Miss Crabbs [88] used the AQ technique for the measurement of the effectiveness of supervision and teaching efficiency Courtis [89] after much very careful work developed a very complicated system of isochrons units The technical student in this area will doubtless want to know more about his efforts to devise measures of teaching efficiency A somewhat less complicated but equally interesting approach is the MA unit proposed by Seyfert [90] and others Lack of space prevents further discussion of these interesting developments

SECTION 13

A SUMMARY STATEMENT ON MEASURES OF TEACHING EFFICIENCY

The evaluation of teachers and teaching should be viewed broadly From a review of what has been said in the immediately preceding section of this chapter about appraisal of teaching it can be easily seen that the evaluation of teaching is a very complex activity The efficiency of teachers depends upon many different qualities, abilities, understandings, and auxiliary competencies In all, seven types of devices were considered (1) check-lists, (2) rating scales, (3) mechanical measuring and recording

[87] Barr and others *The Measurement of Teaching Ability op cit*

[88] While this technique ran into certain logical or psychological difficulties it aroused much interest and many articles appeared in the literature of education on this subject Lelah Mae Crabbs, *Measuring Efficiency in Supervision and Teaching*, Contributions to Education No 175 (New York Bureau of Publications Teachers College Columbia University, 1925) viii + 98 pp

[89] S A Courtis, The Prediction of Growth, *Journal of Educational Research*, Vol 26 (March, 1933) pp 481 492

——— Maturation Units for the Measuring of Growth, *School and Society*, Vol 30 (November, 1929) pp 683 690

[90] Warren C Seyfert and Balfour S Tydal, An Evaluation of Differences in Teaching Ability, *Journal of Educational Research*, Vol 28 (September, 1934) pp 10 15

devices, (4) anecdotal records, (5) tests of qualities commonly associated with teaching success, (6) interviews, inventories, and questionnaires, and (7) measures of changes in pupil growth, learning, and achievement Through the use of such devices much valuable data may be collected relative to many of the important aspects of teaching These various measures of teachers and teaching reduce themselves to four general types

1 Means that attempt to evaluate the contributions of the teacher to the learning teaching situation through the study of the teacher s performance
2 Means that attempt to evaluate the teacher s contribution to the learning teaching situation by tests of qualities of the teacher commonly associated with teaching success
3 Means that attempt to evaluate the teacher s contribution to the learning teaching situation through measures of the mental prerequisites to teaching efficiency
4 Means that attempt to evaluate teaching efficiency through measures of pupil change

Means of the first sort ordinarily take the form of check-lists, rating scales, and various kinds of more or less standardized criteria Measures of the second sort ordinarily take the form of tests and rating scales Measures of the third sort are the many tests of intelligence, academic training professional information, and the other qualities commonly associated with teaching In the fourth group fall the many measures of pupil growth and achievement Each of these sets of measures serves its own particular purpose and is subject to its own peculiar limitations All in all teaching is a very complex activity, and the haphazard, unscientific and superficial study of teaching that characterizes much of our supervision today should not be tolerated While our means of studying teachers and teaching are still crude and most inadequate, the work in this field has progressed to a point where general impressions and the hit-and-miss methods of studying the teacher at work can no longer be justified Just as we have developed improved methods of studying pupils and their habits of work, so we must develop improved methods of studying and assisting teachers

SECTION 14

GETTING THE COOPERATION OF ALL CONCERNED

Who shall study the teacher at work? There will be many persons "inspecting" the teacher's work parents members of the board of education, the principal, state and local supervisors, the superintendent of schools, other teachers, pupils, and we hope the teacher himself Very few teachers are naive enough to believe that their work is not appraised All who will come in contact with the teacher's work will form opinions about it It has always been so and will probably continue to be so as long as there are teachers Instead of being disturbed by this fact as some

persons appear to be, those of us in teaching should be happy that the concern is so general The concern arises in part out of two important facts (1) parents are interested in the welfare of their children, (2) the public is concerned with having good schools In a democratic society it is only natural that many persons are going to be concerned with teaching efficiency

Our hope is that judgments made about teachers and teaching will be good judgments No teacher can rightfully object to having his teaching subjected to scrutiny, his only hope is that the judgments reached about his over-all efficiency and the factors contributing to his success and failure may be sound judgments It is not an easy matter to arrive at sound judgments about so complex an activity The objection is not to evaluation but to unthoughtful evaluation It is hoped when pupils, supervisors, administrators, parents, members of the board of education, and other citizens of the community attempt to evaluate teaching and its contributing factors that their judgments will be fair, sound, and worthy of the profession The purpose of all that has been said in what has preceded in this chapter was meant to improve the judgments of ordinary people teachers, pupils, parents, superintendents, supervisors, board members, and all others who will have opinions about the teacher's efficiency Although much of what has been said will appear to some to be far too technical to be comprehensible to the layman, we have attempted to lay the foundation for better work and fairer judgments in this field The problem of evaluating teaching efficiency and of determining the teacher factors that contribute to pupil growth and achievement is much more complicated than would appear to the uninitiated

Parents and pupils can help It has been frequently urged in this volume that supervision be looked upon as a cooperative activity Parents and pupils are a part of the larger partnership working for good schools Better progress will be made when help is solicited from all concerned Too many teachers approach the problem from a negative point of view Instead of seeking the assistance of all concerned, they actually resent attempts to help as intrusions and as reflections upon their competency The whole movement to engage the assistance of pupils and parents in the improvement of teaching is a part of the trend toward greater democracy in education

Pupil appraisal of teaching In keeping with the trends toward wider participation in the improvement program, many teachers are now seeking the full cooperation and assistance of pupils both in evaluating and improving the teaching process Being as closely associated with the teaching-learning situation as they are, pupils will have many very excellent ideas about how the process can be improved Many persons have in recent years urged greater participation both in planning[91] and in

[91] Harry H Giles *Teacher-Pupil Planning* (New York Harper & Brothers 1941)

evaluating the efficiency[82] of what is done Although they do not approach the problem from quite this point of view, many persons[83] have recently urged pupil participation in teacher evaluation and have proposed means by which this might be done, parents might assist too

Teacher self-evaluation The most alert person of all to good and poor teaching should be the teacher himself[84] Many of the instruments discussed in this chapter, used primarily by supervisors, are equally useful to teachers who would like to know more about their own effectiveness In evaluating one's own efficiency, it is frequently necessary to seek assistance in recording the happenings of some particular segment of teaching, but the evaluation of the data can be made by the teacher himself If the teacher does not feel free to call upon the principal or some supervisor to help with the collection of data, he might then use some older pupil or a parent For those who can afford it, there are now good recording devices that can be used for this purpose Teachers are already trained to evaluate carefully pupil growth and achievement Now we suggest that they study their own performance in relation to this growth and plan improvement where help is most needed

Some time, money, and energy problems It will be readily apparent to most persons that to do all that one ought to do in the study and improvement of teaching would take considerable time, money, and energy When one adds to this the fact that teachers, pupils and administrators are all already overloaded with important things to do, the more systematic study of teaching may seem impracticable If helping teachers to analyze and improve their work is an item with a low priority rating, it is not going to get the attention that it deserves Some extra time, money, and energy may be had, however, by refocusing the efforts of all concerned upon the chief purpose of the school, namely, the facilitation of pupil growth and development There are many persons who seem to have their minds on extraneous matters or some detail not too important in the learning teaching situation It may help, also, to engage the assistance of pupils and parents More can be done when more people help Some relief may arise, too, from better comprehension of what is to be done and the resulting economies Much that has been suggested can be done, but only under thoroughly competent leadership

[82] Roy C Bryan *Pupil Rating of Secondary School Teachers*, Contributions to Education, No 708 (New York, Bureau of Publications, Teachers College Columbia University, 1937)

——, 'Eighty Six Teachers Try Evaluating Student Reactions to Themselves *Educational Administration and Supervision* Vol 27 (October 1941), pp 519 526

—— Reliability Validity and Needfulness of Written Student Reactions to Teachers,' *Educational Administration and Supervision*, Vol 27 (December 1941), pp 655 665

[83] Robert B Boyce and Roy C Bryan 'To What Extent Do Pupil's Opinions of Teachers Change In Later Years? *Journal of Educational Research*, Vol 37 (May 1944) pp 698 705

[84] Maurice E Troyer "Self Evaluation in Teacher Education," *Journal of Educational Research*, Vol 35 (March 1942) pp 528 545

The study of teaching a cooperative undertaking pursued in a democratic framework It has already been emphasized in an earlier chapter of this volume, as in earlier volumes of this series, that supervision should be democratic[85] If the principles of democracy are put into operation, we believe that the practice of supervision will be changed in many respects In the *first* place, we believe that more people will be involved There is much isolationism in teaching today and inability to use the assistance of others, too many teachers are trying to do single handedly what could be done better if several people worked together *Secondly,* the inspectorial teacher-centered type of supervision will be abandoned for the cooperative group type of activity Attention in the new type supervision is shifted from the teacher to the task to be performed Teachers, pupils, community agencies, parents, supervisors, and administrators will all work together harmoniously for the achievement of the purposes of education *Finally,* teachers will take the initiative in seeking and securing wider participation on the part of all concerned Parents still have a profound interest in and fundamental responsibility for the education of the young Teachers will capitalize upon this interest The pupil is always closely associated with the educative process Accordingly they will understand better what they are trying to do and why they will make better progress when they are provided with opportunities to plan what they do and evaluate the effectiveness of their effort Supervisors will help when they can Valid data can be collected in a democratic setting if all concerned are willing to set their minds to the task of doing so

Chapter summary The purpose of this chapter has been to describe the means by which one may discover the improvement needs of teachers In choosing what to study it has been frequently pointed out that teaching must be viewed comprehensively It must be viewed broadly to include, *first,* not merely those activities performed by the teacher in the classroom, as a director of learning, but a wide range of school and community activities all of which are thought to condition pupil growth in its wider ramifications to include, *second,* not merely "method" in its conventional restricted sense or even behavior in its broader sense but the background determiners of these as well, and to include, *finally,* many relational factors involving the manner in which the elements in each learning-teaching situation fit together to produce the total effect observed both in teaching effectiveness and pupil growth In this latter

[85] A S Barr and W H Burton *The Supervision of Instruction* (New York D Appleton Century Company Inc 1926) pp 83 85
Barr *An Introduction to the Scientific Study of Classroom Supervision, op cit*, pp 17 20
A publication of the Department of Supervisors and Directors of Instruction also gives emphasis to this point S A Courtis and others "Teachers and Cooperation bulletin issued by a committee in charge of the Yearbook on Cooperation Department of Supervisors and Directors of Instruction (Washington D C National Education Association, 1937)

respect the teacher and his effectiveness must be studied in close relation to the school, the community, the pupil, the curriculum, the materials of instruction, and all other factors that condition pupil growth Much has been said in this chapter about data gathering devices and their trustworthiness Many persons will evaluate teaching and offer judgments on what makes for effectiveness in the teaching act Most of those who offer such judgments will be poorly equipped both by training and temperament for this responsibility It is hoped that what is said will help to better judgments Few have the judicial temperament and the sense of evidence that one would like for a complex task of this sort Evaluation, like improvement, is cooperative enterprise involving group action and individual initiative

Discussion Questions

Group Exercises

1 Have each member of the class write out a list of the things that he ordinarily 'looks for' in studying the teacher at work To be most effective this list should be prepared before this chapter is read and then rewritten later after some reading has been done Compare the several lists prepared by members of the class for agreement in content and objectivity

2 Have the class as a group observe the teaching of some particular teacher Employing conventional subjective criteria have each member of the class rate the teacher independently on a ten point scale for each of the several items observed Compare the ratings of the several members of the class for agreement If possible repeat the exercise later employing more objective criteria

3 Have the class as a group observe the teaching of some teachers and make a record of the objective evidences of teaching efficiency observable teacher and pupil activities materials and conditions for work After this has been done proceed as follows (1) critically analyze the records made and repeat the observations until the members of the class distinguish between inference and evidence, (2) prepare a list of the evidences collected about the teacher that would seem to indicate that she is a good a mediocre a poor teacher and so forth (3) enumerate the criteria employed in making the judgments called for in (2) above and (4) indicate briefly in the light of exercises (1), (2), and (3) above how one may properly evaluate data such as those referred to above

4 The great variation in observational judgments in teaching may be cut down (1) by considering the appropriateness of teacher and pupil activities, (2) by setting up definite standards of evaluation, and (3) by giving training in the use of these standards in actual situations Where situations permit such a training program may be carried on simultaneously with this course for from three to six weeks Such a procedure should be very enlightening (See Brueckner's study materials for *improving teacher rating*)

5 A committee may develop a short check list of any of the traditional types for some selected aspect of classroom activities Two committees might be asked to work independently on the same item presenting their results for class analysis

6 The chart from the study of Sister Mary Xavier Higgins is extremely helpful It needs to be supplemented by a check list of observable activities or anecdotal records, by means of which we may infer the five levels of performance

a Make an anecdotal record of the specific teacher and pupil activities observed in a concrete learning teaching situation

b Make the evaluation suggested by her chart or anecdotal records

7 The type of critical objective analysis of teaching suggested in this chapter is often decried by sentimentalists as being inimical to what they call 'the finer things of teaching, such as atmosphere, morale, or spirit

a Present arguments showing that this chapter is or is not opposed to the consideration of atmosphere spirit, or classroom morale in evaluating a teaching situation

b State explicitly and in some detail why it is not efficient to stop with atmospheric judgments upon situations

8 It is sometimes interesting to compare the professional preparation, teaching practices, and pupil changes secured by two or more teachers of supposedly different levels of efficiency Make the data as complete as possible arrange the data for the several teachers in parallel columns for comparative purposes What likenesses and differences do you note?

9 The purpose of this chapter is to lay the basis for more accurate study of teaching ability In many instances the analysis herein contemplated may be of the case study sort Through the use of the techniques suggested in this chapter prepare a careful case study of the work of some teacher who is willing to serve as a subject for this purpose On the basis of the data collected prepare a list of the teacher's strong points and his weaknesses If time permits, test the validity of your diagnosis by showing that the correction of the observed weaknesses improves the teacher's efficiency

10 The chapter and several of the exercises emphasize the importance of criteria under which to evaluate the teacher's procedures From a careful examination of scientific investigations in this field and from summaries thereof prepare a set of criteria which would be useful in your own work Indicate the sources and data supporting each of the criteria Any form may be used

11 The method of activity analysis, especially when based upon a few visits does not seem highly reliable Such analyses are however very valuable in practical supervision Show how this is true

12 Report for class analysis any experience you have had in participating in a local survey of growth needs (Students without experience may make critical analysis of methods used in a printed survey report)

13 One authority states that weaknesses common in the teaching body are (1) too much dependence on those in authority, (2) lack of information and conviction on the current economic political, and social problems (3) remoteness from the stream of community life What evils result from these items? Outline at some length the general lines of attack upon these items

14 List three or more serious weaknesses other than those in question 13 found generally among educational workers Similarly, list half a dozen specific difficulties or problems limited to given situations Outline at some length the general methods of attack upon the weaknesses noted

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NOTE For earlier references that is prior to 1938, see BARR A S BURTON, W H and BRUECKNER, Leo J *Supervision* (New York D Appleton Century Company, Inc, 1938)

IX

Studying the Curriculum in Operation

The study of a given curriculum may be approached in either of two ways Evaluations may be based upon

1 Observations of a given curriculum in operation
2 Analysis of the documents made available for teachers such as courses of study source units, guides to child development, curriculum records of various types bulletins on innumerable individual topics and problems

The two methods are interrelated and are usually carried on together in a given situation

Preliminary definitions General definitions will be necessary before we turn to methods of observation and analysis The terms *curriculum* and *course of study* are still confused by many persons despite the great amount of activity concerning them during the past quarter century The concept connoted by the term "course of study has in addition changed so greatly in modern times as to necessitate careful statement of what is meant The definitions given here represent common agreement and usage today within developing trends A few differences of opinion may be expected

The word *curriculum* is increasingly used to mean the actual experiences which children have under the guidance of the school The curriculum results from interaction between and among many persons, influences, and material facilities The aim and the political, economic, and social structure of the surrounding society the public opinion toward education, the aims and philosophies of those operating the educational system, together with their decisions concerning methods and materials, teacher selection, salaries, physical plant, and a host of other items, the types of learners, their abilities, needs, and attitudes—these and many other factors affect the curriculum The course of study, or more properly the documents made available to the teacher, is but one of the factors

The curriculum can be developed only in individual schools and classrooms Teachers and pupils actually make the curriculum in all schools, aided directly and indirectly by parents, organized lay groups, adminis-

trators, supervisors, and various specialists in subject-matter, on the psychology of childhood, in the diagnosis of learning difficulties, and other factors

The term "documents made available to the teacher' was made primary in the opening paragraph above, with 'course of study' used as a subordinate item The change is not merely one of terminology but represents an important change in educational thought The concept of the course of study as it has been used for many decades might well pass out of our thinking

The typical course of study as we have known it for decades consisted usually of a subject-matter outline Early courses often stopped with this, later ones have increasingly included some suggested learning activities, teaching procedures, diagnostic devices, and evaluational techniques The subject-matter was regarded as essential Everyone from parents to pupils believed that the subject-matter must be "mastered," that is, memorized The heading within the printed course often was the "prescribed' subject-matter Early courses went further, prescribing the day by day amounts of subject matter to be covered, specifying the number of minutes per day to be devoted to the segments, and listing the specific fact questions to be used This concept of the course of study was deserted long ago by the leadership Practice in the development of new courses is rapidly following suit even though the older type is still widely used One large city recently issued a new course of the older straitjacket type but it is almost unique among current publications

The traditional type of course was based upon the educational philosophy which regarded the aim of education as the preparation of the child for adult life through use of adult selected and arranged subject matter Courses of study of this type have actually hindered education as we have come to understand it in modern times The materials selected and assigned by adults to given school levels were often not easily comprehensible by the children at those levels Connections between the interests and abilities of the pupils could be made only with difficulty or not at all The natural result has been memorizing and verbalism the opposites of functional learning

A pertinent commentary by Biddick summarizes this [2]

> Often such a course (even when the teacher has been permitted the greatest possible freedom in its use) has tempted him to unduly influence pupils to choose" study subjects that do not truly relate to their interests and needs Then there was always the fear of being criticized for having failed to 'cover' the course of study, or of jeopardizing the security of pupils in their later work

[1] For expanded treatment of these ideas see William H Burton *The Guidance of Learning Activities* (New York D Appleton Century Company Inc, 1944) Chs 1-4, 6 8 10 L Thomas Hopkins, *Interaction* (Boston, D C Heath and Company, 1941) Use the index

[2] Mildred L Biddick *The Preparation and Use of Source Units* (New York Progressive Education Association no date probably 1940) pp 2 3

In the study of a problem of importance teachers were often tempted to get outside of "their fields," but were called back by the fear of "trespassing" on the subject areas of others In short, they were thwarted in their desire to be of real service to their pupils

In many schools the net result of this has been that teaching guides—materials designed to aid the teacher in deciding what and how to teach—have ceased to be of much help The burden which this has placed upon the teacher has been tremendous Further, it has left many teachers with a very serious sense of insecurity—of having nothing to fall back upon or to work from Many teachers and principals have asked for some new type of guide that would not check them in their desire to meet the real needs of pupils—indeed something that would help to set them on their way

New forms of printed or stencil reproduced materials to aid teachers are appearing widely and in ever increasing quantity The concept that the school can best prepare for adult life through guiding the pupil as he lives and grows is dominant The understandings, attitudes and appreciations, abilities and skills which the pupil needs *now* in the solution of his *current* problems, turn out to be similar to those which he will need *later* in solving *adult* problems Understandings, attitudes, and abilities needed in adult life begin their growth in the nursery and are developed through continuing experiences until the learner emerges into adult life The narrow outline of 'prescribed subject matter is replaced by a wealth of suggested materials and experiences Modern guides for teachers far from minimizing subject matter suggest far more of it better adapted to use by varying levels of ability and of interest

Modern courses of study materials, paradoxically, are not called courses of study The one-bulletin type of guide is giving way to many publications of various types The various bulletins may be on the teaching of various subjects on the organization of experience units with subject lines disregarded, on the characteristics of the children who are doing the learning Bulletins may describe and illustrate great numbers of varied learning experiences of teaching procedures, of ways of using many different types and amounts of subject-matter, may contain sources of instructional aids, and of evaluational techniques Extensive bibliographies may be presented Still other documents give definite suggestions for the construction of units, of evaluational techniques, or other items of similar nature

The purpose of modern documents developed by and for teachers is to stimulate the teacher to evolve his own organizations and procedures, that is, to develop a curriculum suited to his particular group of learners within a given community setting A teacher trained to study children and who understands the nature of learning experiences will be able to choose, to eliminate, to adapt materials and experiences to the needs of the learners This activity will in turn contribute to the development of better documentary materials

The chief forms in which new documents for teachers appear are so far

1 Courses of study as we have known them but greatly improved as to content, organization, and aim
2 Source units sometimes called course of study units, resource materials
3 Guides to child development
4 Curriculum records of various types such as logs of units as developed, diary accounts, illustrative teaching units, and the like

These major types which are usually organized into a sequence from kindergarten through the high school are supplemented by numerous supplementary documents, sometimes called course of study bulletins but which might better be known as documentary aids to teachers Illustrative titles include

The Aim and Philosophy (or Viewpoint) of our Schools
New Concepts of Elementary Education
A Design for Curriculum Development
The Growth and Development of Children
Characteristics of Children at Developing Maturity Levels
The Community as a Setting for Learning (or as a Source for Problems and Materials of Learning)
Audio Visual Aids Available in Our Schools
The Junior Primary Other titles are Getting Ready for School —And So to School Curriculum Guides for Five and Six Year Old Learners
Creative Art for Little Children
The Technique of Group Discussion
Assisting Teachers to Make the Transition from Traditional to Modern Methods
Planning a Daily Program under Modern Principles
Schedule Making in the Secondary Schools
The Special Problems of the One Room Rural Schools
Public Relations as an Aid to Improving the Curriculum

The chief type of documents replacing the typical course of study The most widely developed of the new materials is the *source unit* The following criteria may be used

A source unit is [3]

1 Organized around some area of living or in less advanced situations around a subject matter area It is not prepared for a given class often not for a given grade It provides a wide range of materials and experiences useful in meeting the wide range of interests and abilities within any one grade or several adjacent grades
2 Contains far more subject matter and many more activities than one class could ever use It is not a prescribed outline of limited subject matter or rigid day by day procedure but rather a provocative source of suggestions for the teacher It is a source of many diverse teaching units developed by teacher and pupils
3 Developed by a local group and adapted to the situation which produced it The local group may be the faculty of one school or of a group of schools A series of source units in continuity is produced by a city county, or state with wide participation of many local units
4 Not built to a specific pattern though several similar general organizations are in use

[3] For details of some of these organizations see Biddick, *op cit* p 5 Burton *op cit*, Ch 9 Hopkins *op cit* Use index for several references

The curriculum *guides to child development* are similar but usually cover more than one source unit does Descriptions of children at different levels of maturity, discussions of the nature of growth, suggestions for adjusting the school to the child are found This information is sometimes found in the source units as well The guides usually present also a sequence of possible learning experiences over two or three grades, or for several teaching units within a grade, or for several learning groups not separated rigidly into grade levels

The *curriculum records* of various types are written accounts of the actual sequences as they developed with a given group of learners These, together with *illustrative teaching units* are increasingly popular as aids to the teacher

The better school systems are moving steadily toward supplying not a "course of study" but a wealth of continuing documentary materials based upon the observed or expressed needs of the group Sincere efforts made to improve the older type courses will nearly always lead to the adoption of the new procedures

The *improvement of a curriculum* and of a *course* are not one and the same thing Improvement of the curriculum necessitates bringing about changes in many persons and factors operating within the setting for learning This is accomplished through a long-time study of the major factors entering into the instructional program Improving the curriculum is not achieved through rewriting the course of study

Improvement of course materials documentary aids to teachers is actually improvement in writing and editing materials which have been derived from instructional activities The course materials have all too commonly been thought of as the basis for the curriculum The course is produced first and the curriculum based upon it The opposite is the sound procedure develop a curriculum and then produce a course or rather, extensive materials for the teacher Even more accurately the improvement of curriculums and of courses is an interactive and reciprocal process

Curriculums and documentary materials generally, must be under constant evaluation and improvement The materials and methods of education have been under criticism and improvement from earliest times (See Appendix A)[4] The general reason for this is the recognition of lag between education and life A gap[5] always exists between the

[4] The abbreviated historical summary in Appendix A covers a large background and should be read carefully before taking up this chapter

[5] The very great importance—sometimes tragic importance—of this gap and the desperate need to reduce it should be known to all educational workers Quick, compact summaries will be found in

W H Burton *Introduction to Education* (New York D Appleton Century Company, Inc 1934) Chs 16 17 Less direct background will be found in Chs 6 9 10, and 23

H L Caswell and D S Campbell, *Curriculum Development* (New York, American Book Company 1935), Ch 1 2

courses and curriculums of the school and the life of society and of the individual

Dissatisfaction with the educational product the chief reason for scrutiny of local courses and curriculums The commonest immediate cause for investigation of a local curriculum is some deficiency, real or imagined, in the learning product, that is, in the growth and achievement of the learner The weakness may be revealed through test results, through observational and anecdotal records through questionnaire or interview results, through complaints or questions from parents, lay groups, teachers, pupils Comments in the public press may call community attention to the problem The suggestion that some new departure, either of material or methods, be added to the program is an indirect criticism of existing procedures and results

Evaluation of curriculums and of printed materials a difficult task Extensive programs of curriculum improvement and of the production of documentary materials have been developed during the last quarter of a century At first there was little or no critical evaluation of either procedure or results Publication of new 'courses was in many instances regarded as sufficient proof of the value of local effort and product Many new courses were in fact great improvements over the old, many were no better, some were poorer than those replaced The introduction of an "activity curriculum' was regarded as self evident proof of curriculum improvement The substitution of 'units for "subjects was accepted uncritically All this is natural Valid and reliable data upon the ultimate value of documentary aids and curriculums are difficult to secure The complexity of the situation makes difficult the application of the limited, precise methods of scientific investigation *First*, the time interval between use and result is long *Second*, it is very difficult to secure an extensive, reliable description of life behavior of the learners *Third*, it is even more difficult to assess the value of the various factors which contributed to a given behavior pattern Social pressures, economic status, type and influence of home and neighborhood, health, conflict among the aims of pupil school, and society the policy and decisions of the educational leadership—these and many others modify the results achieved by learners Excellent teachers may develop a good curriculum from poor materials less able instructors, a poor curriculum from a good course The materials

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H O Rugg *American Life and the School Curriculum* (Boston Ginn and Company, 1936) Chs 1 8

Twenty Sixth Yearbook of the National Society for the Study of Education 1927, Chapter 1 'Curriculum Making Past and Present

Extended summaries will be found in

J Minor Gwynn *Curriculum Principles and Social Trends* (New York The Macmillan Company 1943) Chs 2 5 15, 18, 19 20

Hopkins *op cit* Chs 1, 2, 3, 5

J Abner Peddiwell (Harold Benjamin), *The Saber Tooth Curriculum* (New York, McGraw Hill Book Company inc 1939) A witty and devastating satire on the gap between the curriculum and life

and the teacher are but two factors among many The inherent variability of human nature is another complicating factor *Fourth,* the naive, so called "practical" attitude of many field workers has contributed to the neglect of proof

Evaluation is, nevertheless, an inescapable part of any program for producing materials or improving curriculums We cannot wait for final life results We must determine as best we can as we go along how well the course or curriculum seems to be functioning The problem must be attacked courageously, despite the handicaps A very few experimental comparisons between curriculums have been made and deserve careful study Judgment guided by criteria has been exercised on both courses and curriculums This may be the only applicable method for some aspects Data-gathering instruments are being evolved and used

The criteria will change from time to time There will be differences of opinion regarding both criteria and the results of application Let no one be discouraged That is the way life is All we can do is use the best criteria and the best judges we have and then say, "To the best of our knowledge and belief this is better (or worse) than that Constant, earnest effort to make honest judgments in the light of principles and facts is the way to reduce differences of opinion Greatly divergent differences of opinion, let it be mentioned incidentally, are not nearly so frequent as the uninformed rank and file believe Contrary to the naive statements of many teachers, there are not many flatly contradictory aims, definitions and so forth, among competent thinkers Differences of opinion on means, on details, on interpretation of new techniques or discoveries are wholesome

Students in seminars, as part of their training will often examine printed materials and curriculums in operation Field workers may often examine a collection of courses in their search for information or stimulus Logs, diaries, units of work written by teachers, and other written curriculum records will be scrutinized Daily programs, policies for grouping and promoting pupils, methods of reporting progress, instructional techniques, the type and amount of instructional aids are all factors to be scrutinized in evaluating courses and curriculums

Evaluation and improvement of documents and of curriculums in real situations is a simultaneous and interactive process Arbitrary distinction between evaluation of documents and of curriculums will be made hence forth in this chapter to facilitate discussion

Materials and curriculums will be judged to be good or poor in the degree to which they contribute to the effectiveness of learning, to growth and achievement by the learner

SECTION 1

GENERAL METHODS FOR EVALUATING THE CURRICULUM

The analysis of a curriculum in operation is difficult because the curriculum is a moving, shifting dynamic process It cannot be handled it cannot be stopped for analysis at leisure It must be observed as it moves by Data must be gathered from this stream of experiences and judgments based thereon The log or diary account of classroom events is a valuable aid to judgment even though it is static and of necessity incomplete Experimental comparisons between curriculums can be made provided that in interpreting results, the influence of many variables and outside factors is recognized Seeing the events happen, interpreting them in the light of known facts in educational science, and of the implications of democratic philosophy, is the general method

Evaluation is effected through

1 Analysis of the educational product as shown by tests behavior records, interviews, questionnaires follow ups
2 Analysis of learning products obtained from different curriculums experimentally compared
3 Analysis of the degree to which the curriculum has been affected favorably or unfavorably by certain extraneous factors (legal requirements, fixed examinations public pressures research, tradition, social changes, professional leadership and others)
4 Analysis of the general activities of teachers and of the use made of resources within the setting for learning
5 Noting the effects of the curriculum program upon the professional activities of teachers and upon the community
6 Analysis of the methods used to develop a program of curriculum improvement

Evaluation through analysis of the educational products Test results, usually casual and fragmentary, it will be recalled, are often an initiating factor in an evaluational program A comprehensive testing program may also be one of the first and most direct evaluational procedures used Growth of the learner in personal social-moral traits (understandings, attitudes, appreciations values, abilities) achievement of fact and skill learning typically associated with school subjects will be extensively surveyed Numerous and varied achievement tests, observational and anecdotal records of behavior, projection techniques creative productions are used to secure a wide sampling of results The results so measured are the products of several factors Interpretations must therefore take into account the general level of ability among the learners, the socio-economic status of the community, the influence of home and neighborhood, and other factors Many of these are susceptible of reasonably precise description A testing program when properly supplemented and interpreted is a legitimate and revealing method of evaluating a curriculum

The use of tests, behavior records for controlled and uncontrolled situations was treated at length in Chapter VI and need not be summarized here

The curriculum is examined finally to see wherein it may be responsible for desirable results, for poor outcomes, or for downright deficiencies in the product

The experimental evaluation of curriculums Careful comparative evaluations between curriculums in terms of learning products achieved are rare One of the first, if not the first, was Collings' extensive experiment published under the title, *An Experiment with the Project Curriculum* [6] A modern experience type curriculum was developed and operated for four years with one group of children A traditional subject curriculum was taught by traditional methods to a matched control group Typical subject-matter mastery tests were given to both groups at the conclusion of the period This was an early study and some criticism arose concerning controls and type of evaluation The experiment and its results are, nevertheless, significant and have had marked effect upon teaching and curriculum-making Results were significantly in favor of the new curriculum

A more extensive study was made by Oberholtzer [7] in Houston Texas in which an "integrated" or modern type curriculum was compared with a traditional one Entire curriculums were compared, but controlled comparisons were made in fourth and fifth grades with 73 teachers and 1,662 pupils The method was that of comparison between matched experimental and control groups Evaluations were based on typical tests of achievement, on the expressed reactions of teachers, pupils, parents, and principals The modern curriculum secured equal or better achievement in typical fundamentals, provided more enrichment, more time for problem-solving, and more participation in other activities The thinking, interest, and enthusiasm of pupils and teachers were favorably affected

One of the most extensive studies of curriculum is the so-called Eight-Year Study in which more than three thousand students were followed through four years of high school and four of college A number of colleges agreed to accept from thirty selected secondary schools, graduates recommended as fit for college work but who had not covered the standard "college entrance" subjects or requirements The thirty schools, freed from these requirements were encouraged to develop curriculums fitted to student needs Variation was great as would be expected The traditional curriculum persisted in many, while other schools developed curriculums which differed fundamentally from the standard college

[6] Ellsworth Collings, *An Experiment with the Project Curriculum* (New York, The Macmillan Company, 1923)

[7] Edison E Oberholtzer, *An Integrated Curriculum in Practice*, Contributions to Education No 694 (New York, Bureau of Publications, Teachers College, Columbia University 1937)

preparatory sequence Comparisons of college records were made for over 3,000 students, divided between the experimental and the formal schools The general technique was that of comparison between matched groups and between matched pairs of students Items evaluated were subject matter achievement indicated by marks, study habits, participation in college activities clarity of objectives and ability to plan own program, intellectual hobbies, creative and esthetic experiences, and others Students passing through the modernized curriculums were definitely superior in many points, slightly superior or equal in others and inferior in two items The accounts of this significant experiment are contained in five volumes which should certainly be known to all school leaders [8]

An experiment similar to the Eight Year Study was carried on for six years in New York City with the elementary schools A total of 75,000 pupils in 69 elementary buildings was involved Approximately one-half the schools continued to use the standard formal subject curriculum, while one-half were given a modern experience curriculum in so far as materials and levels of teacher training permitted A number of technical articles based on this study have appeared but are difficult reading [9] An excellent simple account appears in *Progressive Education* for April 1944 [10] The final account in lively readable form is contained in the volume, *The Activity Curriculum* issued by the State Department of Education, Albany, New York The State Department was invited to make the evaluational survey of the experiment, hence published the final report

Evidences of the superiority of the modern curriculum were found in increased professional spirit, better supervision, increasing understanding and cooperation from the lay public, better materials, better buildings a continuing interest in curriculum improvement, not to mention distinctly superior achievement by pupils

An excellent summary of individual studies all of which bear upon experimental comparisons between curriculums will be found in *An Evaluation of Modern Education,*[11] by J Paul Leonard and Alvin C Eurich

[8] The general title for the five volumes is *An Adventure in American Education* The separate volumes published between 1942 and 1945 are I *The Story of the Eight Year Study* II *Exploring the Curriculum* III *Appraising and Recording Student Progress* IV *Did They Succeed in College?* V *Thirty Schools Tell Their Story* (New York Harper & Brothers, 1942 1945)

Considerable periodical literature is also available some of it highly critical of the study

[9] *Review of Educational Research* (June 1942), p 282 gives references to ten or more articles on the New York City Experiment

[10] John J Loftus Learning Comes to Life New York City's New Program of Elementary Education," *Progressive Education*, Vol 21 (April, 1944) pp 186 189 Note references there to New York City bulletins

[11] J Paul Leonard and Alvin C Eurich, *Evaluation of Modern Education* (New York D Appleton-Century Company Inc 1942)

Evaluation of the curriculum in the light of certain favorable and unfavorable extraneous circumstances Adequate and valid judgments cannot be made merely by looking at the results achieved We must also take note of certain powerful factors which influence, sometimes coerce curriculum makers The factors working within complex social situations are never wholly positive nor wholly negative An item may be positive in one era and place, negative elsewhere The long-time weight of most factors can be seen, however, to be chiefly positive or chiefly negative [12]

Factors which maintain the status quo and generally retard progress *Colleges and higher schools* through insistence upon certain entrance requirements have seriously retarded wholesome improvements in the curriculums of the lower schools We may note here that several factors to be discussed overlap and interlock in many ways The *college entrance* requirements are in turn partially the product of the older *faculty psychology* with its emphasis upon *mental discipline* through formal exercises The earlier *social usefulness* of the required subjects has been almost completely lost to sight *Prestige* and *social approval* develop which in turn support the entrenched curriculum against the demands for needed improvement Eventually a *tradition* develops which makes the task of improvement harder than ever

Examinations, college entrance, eighth-grade, "regents," and the like generally retard curriculum improvement The use of standard tests alone as final measures may seriously restrict both curriculum and teaching procedures Modern evaluation programs directed at far more than fact and skill outcomes should enhance curriculum improvement

Textbooks in earlier times were a serious handicap but in *modern times*, textbooks under the influence of modern psychology have been increasingly useful in curriculum improvement

Boards of education in earlier times determined the course and hence the curriculum and were a strong influence against improvement The surrender of many powers by the board has reduced their influence over the curriculum

Tradition, despite the glamor often attached to the word, has been in general the most effective blockade to improvement of courses and curriculums Several factors listed above often combine to form a tradition or to give added power to an established tradition

Factors which exert positive or negative influence at different times and places *Legislation* as a method of curriculum control is largely a nuisance Power to select texts or content may be placed legally with certain boards or commissions Certain subjects or parts of subjects may be forced into the curriculum by law notably subject-matter on the evil effects of alcohol and narcotics, formal citizenship training and rituals,

[12] The summary here is sharply abbreviated because of space Points are adapted from two or three important research studies which are noted in the bibliography particularly those by Lawson, Miel, and Saylor

certain desirable materials on health and physical education Reading of the Bible is rigidly prohibited by law in some states, as rigidly required in others Responsive to momentary public pressures, legislation is unsystematic and capricious History shows that legislative effort to determine curriculum content is unnecessary, and in many cases quite ineffective

War as an influence is closely allied with legislation since the one often results in the other War usually expands curriculums temporarily to meet immediate demands The current expansion in aviation advanced mathematics, nursing production and conservation of food are illustrations Additions due to war often remain as permanent additions, for instance material in civics, citizenship, physical education, health, and so forth

Public opinion has practically never initiated any important improvements of fundamental importance but it has often brought about minor changes desirable and undesirable Public opinion usually retards badly needed improvements but supports them vigorously once professional school leaders accomplish the reforms

Factors which have in general significantly promoted the improvement of curriculums The *superintendent,* especially in larger systems, seems to be the single most important agent in promoting curriculum improvement Programs are initiated inspired financed and protected by the superintendent or his professional staff The climate necessary for growth is provided by this leadership *State departments* of education are beginning to exercise leadership in the same manner

Superintendents, at first, often had to overcome inertia and opposition within the staff Certain individual superintendents, particularly in given regions are often the chief obstacles to all growth and improvement The superintendency however is one of the powerful influences for progress The *professional staff* shares in this, and in larger systems exercises much of the leadership

Educational research, which at first supported the status quo, has increasingly become a factor influencing growth Research workers in early days were not always aware of unstated objectives and assumptions, hence tended to study existing procedures Currently research workers aid in moving ahead from the status quo A secondary achievement has been to aid in breaking down opposition which was due to ignorance of the facts

Social change within our national life political, social, or economic is a factor difficult to assess but unquestionably of great importance Prior to 1900 schools paid little attention to the emerging social order and its problems The turn of the century saw growing sensitivity to the relationship between school and society Explicit attention to this relationship and systematic attack has added to and expanded the curriculum considerably but seldom eliminated any materials

Leaders, "frontier thinkers," have had considerable influence since

their writing usually reports and analyzes the social changes taking place Attempts to predict future developments have had their influence

Changing theories about learning have had both positive and negative influence but usually positive in modern times The older faculty psychology, for instance, with emphasis upon mental discipline through formal exercises was (and still is) a serious obstacle to improvement The modern psychology with its organismic concept of the learner and its dynamic interpretation of mind and of learning is beginning to exert a powerful influence for good

The *practice of other school systems* has had great influence upon curriculum programs, at first operating to retard growth through emphasis upon frequency of practice, but latterly to accelerate growth through stimulation to critical comparison and analysis

Teachers committees and associations, in the beginning of the modern curriculum movement, were vigorously opposed to any and all changes This was due in part to honest but thoroughly mistaken beliefs about the value of certain subjects to honest ignorance about the learner and his methods of learning Teacher opposition to curriculum improvement is to this day still based upon ignorance of the facts Opposition was also due to inertia, to unwillingness to give up cherished routines and vested interests Teacher committees, as the curriculum movement got under way came to participate and cooperate under direction but usually failed completely to see the implications This was partly due to autocratic leadership Teacher committees in modern times, particularly under democratic administrations, are increasingly becoming one of the most powerful factors not only in contributing to but in initiating curriculum improvement programs

Agents and influences working from *within* the system seem to have far greater influence than those working from without

Evaluation of the curriculum through analysis of the general activities of teachers and of the use made of resources within the setting for learning The general technique is that of observing classroom procedure in the light of a summary of desirable and undesirable techniques so far as we know these The typical instrument is a "list of items to observe" which is merely a memory aid and guide to observation *Check-lists are not rating scales* The lists should be developed cooperatively by the educational workers using it The items within the list thus become a commonly agreed upon summary of significant items and a basis for common discussion of the curriculum events The amount of detail may vary greatly one list containing a small number of major items, another going into precise detail about some or all phases of classroom procedure

Literally scores of such instruments are available in the literature and in bulletins issued by school systems The construction of such a list is an excellent in-service project An illustrative instrument developed by

various student groups who were studying their own work with the writer is given here .

The sub-items in this list are arranged in nearly all cases in an order moving from the least desirable practices to the more desirable Sub-items under several headings were omitted to save space Interested groups using this list, or developing a similar instrument, may produce their own details

AN OBSERVATIONAL ANALYSIS OF CURRICULUM PRACTICES
(W H Burton and students)

1 *How was the learning situation initiated?*
   a By indefinite assignments
   b By assignment of paragraphs or pages in a text, or take the next lesson ' or 'take the next chapter, or ' the next ten questions
   c By topics in a book
   d By giving a set of stock questions to be answered
   e By directing the construction, or modeling or drawing of some apparatus or object
   f By utilizing or by arousing a pupil purpose
2 *How was the next lesson determined?*
   a Arbitrarily assigned by the teacher
   b Developed by teacher out of the preceding lesson or class experience
   c Cooperatively determined through discussion and planning
3 *What was the source of the content of the lesson?*
   a Entirely from the text
   b From several texts or similar references
   c From a variety of sources (texts non fiction books stories excursions interviews with persons, experiments, observations documents reports etc)
   d Current events
   e From children s experiences
4 *How was the learning experience developed?*
   a By means of limited fragmentary fact questions either given by the teacher or found in the workbook
   b By means of consultation of various references
   c By means of discussion and conversation, by interviews and the like
   d By means of committee discussions and reports
   e By means of experimental or constructive work
   f By a wide variety of learning experiences
5 *What was the purpose of the lesson observed?*
   a To drill upon arbitrary associations or skills
   b To recite textbook material formally
   c To carry on construction modeling, or drawing
   d To attempt to derive understandings
   e To analyze, to compare to judge
   f To derive attitudes and appreciations
6 *What type of class discussion was utilized (where discussion was in order)?*
   a A discussion period was seldom or never provided
   b The pupils took no active part in the discussion
   c The class discussion was not purposeful
   d The class discussion was random and unorganized
   e The brightest pupils only participated
   f The entire class participates on various levels in discussion

7 *What type of drill was utilized (where drill was in order)?*
   a Drill material was rarely ever used
   b Drill material and procedure was mechanical—or—motivated—or—meaningful
   c Drill material found in text and workbook alone used
   d Drill material supplementary to text and workbook used—commercial
   e Drill material supplementary to text and workbook used—teacher made
   f Drill material was functional and related to pupil purpose
8 *To what extent did pupils contribute to the lessons from their own personal experience?*
9 *To what extent did the teacher use pupils' experiences in making the work meaningful and interesting?*
10 *To what extent did the teacher enrich the lesson from her own experience?*
11 *To what extent did the teacher suggest questions growing out of the lesson for the children to consider, to investigate, or to apply to their out of school lives?*
12 *To what extent did the pupils suggest questions growing out of the lesson for further consideration volunteer to bring in exhibits to report experiences, etc?*
13 *How frequently did the pupils disagree with the text with the teacher, or with other pupils during the discussion period?*
14 *What method does the teacher use to determine the nature and extent of individual differences among pupils?*
   a Individual differences are not recognized
   b Only extreme differences are recognized
   c The teacher estimates each pupil's ability
   d Objective tests are used in measuring certain individual differences
   e Objective tests are supplemented by estimates of the teachers by interviews by scrutinizing of environmental causes, etc
15 *What provision is made for individual differences which are discovered?*
   a The objectives, methods and materials are the same for all pupils
   b Special attention is given only to the very dull and the very bright
   c Pupils are put in groups according to level of ability but the subject matter is not modified
   d Pupils are put in groups according to level of ability, and modifications made of subject matter and method
   e There are differentiated assignments individual assignments special work voluntary projects etc
   f There is cooperative group work on various aspects of a total unit
16 *What was the nature of the work suggested for pupils while at their seats?* (This refers to seat work for younger children work for time over and beyond that taken for regular assignments and projects for older children)
17 *What percentage of the pupils at their seats seemed idle?*
18 *What percentage of the pupils initiated seat work when they had leisure time?*
19 *How does the teacher determine the results of her teaching?*
   a Teacher judgment only
   b Old fashioned arbitrary essay tests
   c Balanced and tested essay tests
   d Standard tests, commercial, home made objective tests
   e New type instruments of evaluation, scales inventories, problem situation tests check lists, interview blanks

f Behavior records, anecdotal records, diaries, logs, other voluntary records
g Case studies
h Study of creative products

20 *How was the sequence of materials determined?*
a There is no organization of materials
b The sequence of topics in the text is rigidly followed
c The sequence of topics in the text is used as a guide which may be varied
d The sequence of learning experiences is psychologically organized on the basis of pupil purpose and experience with due regard for social demands

21 *What type of criticism, stimulation or correction is used during the class period?*
a The teacher criticizes in an irritated and emotional manner, causing antagonism or indifference
b The teacher criticizes and corrects the pupil in a courteous and sympathetic manner
c The teacher by comment and question aids the pupil to discover his own weaknesses or errors and to attack their correction himself

22 *What degree of pupil attention was noted?*
a Only very few pupils were attentive
b Whether few or many were attentive attention was not sustained
c The teacher demanded and secured attention by extraneous means
d Enthusiastic attention given because material was worth while

23 *What type of pupil activity was dominant?*
a Misdirected and detrimental activity
b Unguided random haphazard activity
c Pupil activity was sharply repressed
d Activity controlled and directed by the teacher
e Spontaneous activity developed around pupil purpose

24 *What kind of instructional materials were used—and how adequately?*
a Supplementary material such as reference books maps dictionaries pictures, exhibits, construction materials tools etc , were not used at all
b Supplementary materials were not available
c Supplementary materials were used but not effectively
d Supplementary materials were not ready when needed
e Supplementary materials were used adequately and effectively

25 *What was the nature of the teacher's control over the pupil and the method of handling disciplinary cases?*

The type of data derived through use of the instrument above affords considerable insight into some of the factors which affect the curriculum The printed materials, notably the course of study' exert large control over the teachers classroom procedures Administrative and supervisory officers who insist that teachers "follow the course" further enhance the control of materials over the teacher A teacher who must 'cover the text," must teach designated facts, must develop designated levels of skill, shows this influence unmistakably in his classroom procedures The curriculum may be dominated by printed materials and by decisions of officers over the teacher rather than guided by the needs of learners and of the community, and by adjustment to ability levels

The type of documents developing in current times, paradoxically controls the teacher by giving him freedom The teacher using modern printed materials does not "cover" them, does not follow a prescribed sequence He selects, adapts, and invents, stimulated by the wealth of materials and experiences given him This is reflected in classroom procedure

The Mort Cornell Guide for Self-Appraisal of School Systems This is an extensive general list covering much ground Several items not found in other lists appear The form of the questions used is also of interest The following sample illustrates the instrument [13]

I CLASSROOM INSTRUCTION

A THE CURRICULUM

1 *Flexibility of Curriculum* The curriculum is sufficiently flexible to provide for individual pupil interests and abilities and to permit teachers to exercise their judgment and initiative in the choice and arrangement of activities subject matter and method

	Totals	YES	NO
a Teaching periods On the elementary level, part of the teacher's daily schedule should be organized in terms of long periods for broad subject matter fields as well as short periods for teaching specific skills or minor divisions of subject matter The teacher should be free to modify her teaching periods as need arises		YES*	NO*
Q May I see your daily schedule? How closely do you follow it? Why?			
Interview Principal Teachers	1 Most periods are at least 45 minutes in length	Yes	No
Observe Teacher's daily schedule	2 The type of work within the longer periods may vary from day to day	Yes	No
Evidence	3 Teachers have been told that they are not expected to follow a schedule rigidly	Yes	No
b Supplementary materials A variety of reference books and materials should be available for each subject or project whether in classrooms or in special rooms		YES	NO
Q What supplementary and reference materials are available for use by your class? Where are they kept and where used?			
Interview Teacher, Principal	1 There are encyclopedias for children in the elementary classrooms	Yes	No
Observe Books in room Pamphlets Supplies	2 There are several sets of social studies books in the upper grade rooms or a large variety of single copies	Yes	No
Evidence			

[13] Paul R Mort and Francis G Cornell *A Guide for Self Appraisal of School Systems* (New York, Bureau of Publications Teachers College Columbia University, 1937)

	3 Crayons water colors and large sheets of paper are available in elementary classrooms	Yes	No
	4 A set of reference books pertinent to the subject being studied is available in high school classrooms	Yes	No
	5 Teachers are collecting and filing pamphlets, magazines and other materials useful in teaching their respective subjects	Yes	No
c Pupil freedom Elementary pupils should be reasonably free to move about the room to consult dictionary and similar reference materials		YES	NO
	Q What rules do you have concerning pupils moving about the room whispering etc?		
Interview Teacher Principal, Children	1 *Pupils* move about the room quietly and freely in consulting reference books	Yes	No
Observe Activity in the room	2 Pupils work together in groups	Yes	No
Evidence	3 Not all pupils are doing the same type of work all the time	Yes	No

[a] YES-NO (in capitals) to be determined *from* weight of evidence as revealed by answers to the accompanying sub items

Pistor's analysis of democracy in the classroom This instrument developed to study democracy in the classroom actually covers a wide range of curricular activities The list contains 120 questions evenly distributed under 12 headings Two divisions are reproduced here as illustrations[14]

	Never	*Seldom*	*Sometimes*	*Often*	*Always*
1 *Curriculum Opportunities*					
a Do the children and the teacher have freedom to select and to plan their work being restricted only by very broad outlines of curriculum scope and sequence?	1	2	3	4	5
b Are the pupils studying topics which are relatively important to them here and now, especially problems of their own class living?	1	2	3	4	5
c Does the class program of living consist of a wide variety of experiences to challenge and interest pupils of various levels and types of intelligence?	1	2	3	4	5
d Do the pupils have good habits of work induced by real tasks and the satisfaction of doing them?	1	2	3	4	5

[14] Frederick Pistor, 'Practicing Democracy in the Classroom, Experimental Edition No 3 (New York, Hunter College), Mimeographed material

		Never	Seldom	Sometimes	Often	Always
e	Does the work of the teacher center about the study and development of desirable pupil attitudes and habits rather than merely the teaching of lessons?	1	2	3	4	5
f	Is drill work in the tool subjects individualized to the extent that no two pupils in the room must practice the same things during a given period?	1	2	3	4	5
g	Are there many experiences with unstructured materials (clay, paints, cloth, wood, etc.) for pupils to pattern in accordance with their individual values and modes of organization thus giving opportunities for teacher study of personality patterns?	1	2	3	4	5
h	Do the children organize and work in many flexible, temporary and natural groups as the program develops thus affording many opportunities for teacher study and guidance of pupils?	1	2	3	4	5
i	Is the situation such that the pupils demand and develop greater proficiency in the use of the skills as they need them?	1	2	3	4	5
j	Do the pupils have part of the day to work alone on their individual problems or at their individual interests?	1	2	3	4	5

Total Value of This Section

		Never	Seldom	Sometimes	Often	Always
	Discussion and Class Conference Periods					
a	Do the pupils have opportunity to suggest and to record problems and activities for the group to consider and to undertake?	1	2	3	4	5
b	Do the children select the problems to be discussed in a given period or the activities to be engaged in at a given time?	1	2	3	4	5
c	Are the pupils guided by the teacher in their search or selection of worthwhile and important problems and activities?	1	2	3	4	5
d	Do the children offer suggestions of possible ways of solving a problem or of carrying out an activity?	1	2	3	4	5
e	Do the pupils suggest advantages and disadvantages of suggested procedures in solving problems or in carrying on activities?	1	2	3	4	5
f	Has a wide variety of books or other reference materials been used and quoted by the pupils in their attempts to solve their problems?	1	2	3	4	5
g	Do the pupils bring in voluntarily from home or elsewhere books newsclippings, selections, pictures or specimens related to class work, for the purpose of contributing to class discussion?	1	2	3	4	5

	Never	Seldom	Sometimes	Often	Always
h Do all of the pupils have about equal opportunity and desire to participate in class discussion in a spirit of cooperative concerted action?	1	2	3	4	5
i In a given period of this type, is there sufficient discussion by pupils instead of too much discussion by the teacher? (Does pupil discussion consume at least three fourths of the time?)	1	2	3	4	5
j Do the children evaluate their conference and its results in terms of their general and specific class aims?	1	2	3	4	5

Total Value of This Section

The Metropolitan School Study Council Guides Another instrument uses questions differing in form from the preceding lists A booklet widely known as "the blue book," contains 57 pages of questions 37 of which bear upon the course of study and the curriculum Two divisions are reproduced here as illustrations [16]

How Are the Schools Teaching Children the Tools of Learning—Reading Speech Writing Numbers and Other Skills?

A *What is included in the reading program?*

1	The reading program includes				
	a Practice in following written directions	*	1	2	3
	b Practice designed to increase speed and comprehension in reading for thought	*	1	2	3
	c The organization of each pupil's reading in terms of his interests and problems	*	1	2	3
	d Experience in locating and reading material related to specific problems	*	1	2	3
	e Opportunity for a wide variety of recreational reading encouraged by teachers	*	1	2	3
	f Creation of many silent reading situations on a variety of topics adapted to each individual	*	1	2	3
	g Informal discussion of books read for pleasure	*	1	2	3
	h Provision for reading experience related to activities outside of school e g , sports, camping and gardening	*	1	2	3
	i Oral reading in audience situations	*	1	2	3
	j Critical reading	*	1	2	3
	k Self appraisal and improvement	*	1	2	3
2	Training in the use of encyclopedias, dictionaries, and other reference books is made a part of the reading program	*	1	2	3
3	Pupils learn to use tables of contents indexes glossaries and footnotes	*	1	2	3
4	Silent reading instruction is an integral part of all learning and is not taught as a skill for its own sake	*	1	2	3

[16] Paul R Mort Arvid J Burke and Robert S Fish *A Guide for the Analysis and Description of Public School Services* (New York Metropolitan School Study Council 1944) Part I pp 1 2

5	Silent reading is stressed more than oral reading in all grades	*	1	2	3
6	Remedial instruction is provided for children who are retarded in reading skills	*	1	2	3
7	A trained librarian assists in teaching pupils how to use the library	*	1	2	3
8	There is a wide variety of reading materials including books, children's newspapers, and periodicals	*	1	2	3
9	There is a reading clinic available in the school for pupils beyond the primary grades	*	1	2	3
10	Classes frequently work in the library to gain firsthand experience in the use of the libraries and library resources	*	1	2	3
B	*How is reading taught in the elementary schools?*				
1	The teacher is familiar with scientific findings on reading instruction such as are published in the yearbooks of the National Society for the Study of Education	*	1	2	3
2	A number of pre-primers are used in teaching beginning reading	*	1	2	3
3	Many objects in primary grades have printed labels attached to them	*	1	2	3
4	Picture dictionaries are found in primary grades children's dictionaries are found in upper grades	*	1	2	3
5	The diagnostic and remedial aspects of the reading program include				
	a Measurement of speed in silent reading	*	1	2	3
	b Measurement of comprehension in silent reading	*	1	2	3
	c Vocabulary tests	*	1	2	3
	d Diagnosis of eye movements in silent reading	*	1	2	3
	e Determination of reading readiness				
	First grade	*	1	2	3
	Other grades	*	1	2	3
	f Checking for visual and auditory defects	*	1	2	3
6	Pupils are motivated to read				
	a Through the provision of a wide variety of materials at every grade level	*	1	2	3
	b Through the provision of materials graded to the reading ability of each pupil	*	1	2	3
7	Children advance to more difficult reading material only after wide experience at the previous levels of attainment	*	1	2	3
8	Material read for appreciation is not minutely analyzed	*	1	2	3
9	Children are taught reading in groups or individually according to their rate of progress	*	1	2	3
10	No pupils are lip reading while working at their seats	*	1	2	3
11	Except in audience situations all reading is done silently	*	1	2	3
12	Pupils measure their own progress in learning to read	*	1	2	3

The use of logs, diary accounts, stenographic reports, and other curriculum records Each of these instruments produces valuable data concerning the curriculum, on the basis of which judgments of worth may be made

Evaluation through noting effects of curriculum programs upon the professional activities of teachers Programs of curriculum improvement may be evaluated by noting the effects upon the staff which participates

Trillingham secured from 648 superintendents opinions as to improvements in their situations due to a program of curriculum revisions The summary follows

RESULTS OF IMPROVEMENT IN EDUCATIONAL PROGRAM DUE TO CURRICULUM WORK IN ALL CITIES STUDIED *

PHASES OR FACTORS OF EDUCATIONAL PROGRAM	DEGREE OF IMPROVEMENT MADE							
	Strong		*Some*		*Little*		*Total*	
	No	Per Cent	No	Per Cent	No	Per Cent	No	Per Cent
Richer and better subject content	61	65 9	18	19 1	1	1 1	80	86 4
Teacher growth and morale	62	67 0	17	18 3	0	0 0	79	85 3
Improved classroom methods	57	61 6	19	20 5	2	2 2	78	84 2
Pupil growth and interest	49	52 9	25	27 0	2	2 2	76	82 1
Stimulation of professional staff	63	68 0	11	11 9	1	1 1	75	81 0
More and better books and supplies	43	46 4	22	23 8	6	6 5	71	76 7
New emphasis on research and experimentation	31	36 7	24	25 9	8	8 6	66	71 3
Board recognition of continuous program	22	23 7	28	30 2	12	13 0	62	67 0
Community recognition of worth of program	9	9 7	38	41 0	14	15 1	61	65 9
Total	100		202		46		648	

This table should be read as follows Richer and better content is an outcome of the curriculum program in sixty one cities which is 65 9 per cent of the ninety three cities which have curriculum programs

* C C Trillingham *The Organization and Administration of Curriculum Programs* Education Monographs No 4 (Los Angeles Calif University of Southern California, 1934), pp 135 136 Table XLVII

A similar study based upon the Virginia curriculum program was made by Leonard who points out that while the method has its limitations nevertheless the evidence derived is important [16]

I Teaching practice	
Percentage of teachers actually using course	85
Percentage of teachers developing units of work	55
Percentage of teachers adding to course of study	49
Percentage of teachers using textbook only	6
Percentage of teachers disinterested and unwilling to change teaching	9
II Supervised Growth	
Percentage of teachers changing point of view	80
Percentage of teachers whose point of view changed by experimentation with course	32

[16] J Paul Leonard Is the Virginia Curriculum Working? *Harvard Educational Review*, Vol 7 (January 1937), pp 66 71

Percentage of teachers whose point of view changed by discussions and reading 42
Percentage of teachers who have studied special subject matter this year (not professional) 67
Percentage of teachers making case studies developing interest charts making grade adjustments changing pupil reports and visiting homes 32 to 76

III Physical Equipment
45 per cent of all the radios in the schools reporting were purchased last year as were 26 per cent of the phonographs, and 23 per cent of the phonograph records The Library Division of the State Department of Education reports an exceedingly large increase in the purchase of library books with and without state aid

The effect of curriculum programs upon the community Certain results which appear in the life of the community constitute another type of evaluational evidence These results are more frequent and more extensive when the community approach to curriculum improvement is used This approach which will be described in Chapter XIII is new but promises to be the most functional of all Accounts of early attempts are to be found in

CLAPP Elsie R *Community Schools in Action* (New York The Viking Press, Inc 1939)
EVERETT Samuel *The Community School* (New York, D Appleton Century Company Inc 1938)
HANNA Paul *Youth Serves the Community* (New York, D Appleton Century Company Inc 1936)
MITCHELL M R and others, 'Youth Has a Part to Play' *Progressive Education* Vol 19 (February 1942) pp 87 109 Contains many fragmentary illustrations
GWYNN J Minor *Curriculum Principles and Social Trends* (New York The Macmillan Company 1943) Ch 19 This excellent chapter contains summaries of several recent programs

Illustrations of evidences to be found within the community are as follows

1 The typical improvements and extensions within the course or curriculum more numerous and more far reaching when the community approach is used
2 Numerous extensions of needed services within the community stimulated by the curriculum program

Health service and information	Nurseries
Recreation facilities	Cooperative agricultural and
Night school for youth	other projects
Adult education	(Others may be noted)

3 The development of a community council with its accompanying attack upon problems of juvenile delinquency recreational facilities, parent education, and so forth
4 Extensive participation by the lay public in planning and carrying on the work of the schools This may range from serving the school lunches, managing nursery schools and the like to extensive study of the local

needs, resources, and fact finding by committees and advisory commissions

5 The more effective gearing of the curriculum to the needs and resources of the community within which the curriculum develops (Material is included also looking toward the understanding of the ever wider community)

6 Great increase in community understanding of the nature of education, of the learning process of the relation of education to the community of the necessity of active experiencing and participation by all, of the meaning of democratic interaction

7 Increased knowledge of the nature of the organized educational system as exemplified in the local school of the place of the school in civilized society

8 Increased understanding and acceptance of the dynamic point of view that curriculums and methods of teaching will always be under constant improvement

9 Increased financial support for better buildings materials and salaries increased moral support for innovations for increased standards of teacher training, and so forth

10 Greatly increased cooperation between teachers and parents

11 Increased recognition of the teacher as a citizen of the community

Comment is curtailed here since major discussions of the community and learning appear in Chapters X and XIV

Evaluation of the methods used to develop the program of curriculum improvement The prime point is that curriculum improvement has not taken place until the beliefs, values, and practices of the persons involved have changed The methods listed below are believed to accomplish these changes most effectively, hence programs approximating them are to be judged good

1 Did the program grow out of a recognized need within the situation? (Not initiated from above because 'it is a good thing to be doing' or because other systems are developing improvement programs')

2 Was there dynamic leadership from status leaders with recognition and use of leadership wherever and whenever it emerged within the group?

3 Were the readinesses of the professional staff of the community of pupils and parents recognized? Was provision made for developing sensitivity and readiness?

4 Was there provision for the widest participation by professional staff and lay public?

5 Was there provision for free flow in both directions of information advice suggestions questions?

6 Did the group develop a policy and continuing process out of their efforts to meet needs and solve problems?

7 Was the machinery developed out of the activities of the program and reshaped when necessary? (Study groups conferences workshops, committees, etc)

8 Were various types of curriculum records kept and used logs, diary accounts exhibits of planning exhibits of products?

9 Was the program as gradual as was necessary within the process of social change, but at the same time as rapid as developing understandings permitted?

SECTION 2

GENERAL METHODS FOR EVALUATING THE DOCUMENTS WHICH AFFECT THE CURRICULUM

The evaluation of printed materials furnished the teacher necessitate judgment on at least five items

1 The effect of teachers' guides upon the learning product
2 The effect of the guides upon the teachers classroom techniques and management
3 The extent to which the materials have been favorably or unfavorably affected by designated extraneous factors
4 The internal structure (selection and arrangement) of the printed materials themselves
5 The methods used in developing and writing the materials

The first three were adequately cared for incidental to the evaluation of the curriculum The latter two will be examined here

The documents affecting the curriculum are of two general types The first consists of either the typical course of study cast in more or less formal mold or the more recently developed teachers' guides and source units Older type courses were usually in one volume, often a very small one

The second type of material includes those various and miscellaneous bulletins upon any and all problems confronting teachers The new guides are practically never in one volume but in a continuing series of bulletins New materials are added at any time in response to needs Many items not included at all in older courses are now discussed in bulletins for teachers Literally hundreds of new type bulletins are available, published by state, county city and even small-town systems Special materials for different levels of ability appear Many materials, including source units are published also by government agencies, state and national, by commercial interests, notably banks, air lines, railroads, manufacturers of food and soft drinks, agencies interested in health, and others

Major elements within courses of study or teachers' guides Certain major topics will appear in both older type courses of study and in the new teacher guides whatever their form The older courses are often confined to the outline of prescribed subject matter to the neglect of several vital points Certain courses, in fact, present large amounts of subject matter without the slightest reference to the purposes to be served by the material Newer courses increasingly include all or most of the items listed below The teacher guides or source unit sequences may include some of this material in each volume, but better practice is to develop many of the important items in a separate handbook or in one or two smaller pamphlets Brief reference to fundamental considerations can then be made in the major volumes

The common structural elements are

1 A statement of philosophy or viewpoint or educational belief
2 A statement of general educational aim
3 A listing in more or less detail of the specific objectives for subjects, units, or areas of experience
4 An outline of subject matter and related materials, together with lists of suggested learning activities, the two indicating the scope and sequence of the course
   a An explanation of the methods used in determining the scope of the course
   b An explanation of the methods used to select and organize the content into categories
   c An explanation of the methods used to determine sequence or gradation of materials and experiences
5 A list of provisions for individual differences, administrative adjustments, differences in amount of material in types of learning experience (This is sometimes a part of the preceding point though often presented separately)
6 Suggestions for the organization of teaching sequences segments of subject-matter logically arranged for use in assign study-recite test procedures, subject matter units, proposed functional or experience units
7 A discussion of measurement and evaluation with illustrative tests and techniques
8 A list of texts supplementary books pamphlets, songs, pictures, audio visual aids construction materials, bibliographies

We may examine teachers' guides to determine if these necessary items are (*a*) present, and (*b*) adequate and sound We ask such questions as indicated below Are objectives stated? Stated in acceptable form? Derived from life? Do the objectives and materials serve the needs of learner and of the community? Does the material contain introduction to the "great society" beyond immediate contacts? How is the content selected? Arranged for general reference? Arranged for use in teaching situations? What techniques for evaluation of outcomes are suggested? Are there adequate teaching aids, bibliographies, sources? Is the material and organization in accord with scientific knowledge about the learner, about the community? Likely to foster democratic principles and processes? Who constructed the guides? How were the writers and editors selected? What aims and principles directed the production of materials? What use was made of experts, of experimental try-out? What was the interaction between curriculum development and production of documents?

Evaluation of the major elements found in teacher guides Dissatisfaction with learning outcomes, as has been stated, is the usual cause for scrutiny of the elements in the setting for learning The search for causes of ineffective learning leads to, among other things an examination of the documentary guides and other printed materials furnished teachers The following pages contain an extremely brief summary of general methods and criteria[17] under which to examine these guides

[17] *Special note* The presentation of criteria for evaluating the major factors individually is sharply curtailed *First* general criteria only are presented Illustrations of

The philosophy, or viewpoint, or creed, and general aim The philosophy and aim should be stated explicitly in early pages or in a separate bulletin An astonishing number of traditional courses omit this entirely Analysis of the course must be made in these cases in an effort to determine philosophy and aim by inference

The philosophy will vary from democratic to authoritarian with many variations in between Authoritarian course writers often include naive verbalisms upholding democracy that are flatly contradicted by the actualities within the course The general aim will naturally be stated in broad terms but need not be vague, indefinite, or platitudinous The aim should be in accord with the values, ideals, and aspirations of society It should not be a remote abstraction Methods of deriving philosophy and aim again vary from democratic cooperative discussion, to consent by the group to materials developed by an individual or a small group, to authoritarian imposition

A course or guide is good in the degree to which

1 The philosophy and general aim are in accord with the democratic philosophy and take into account relevant scientific knowledge
2 The philosophy and general aim are stated in meaningful language
3 The philosophy and general aim were derived through discussion by the whole group

The specific objectives Objectives [18] should be stated for subject areas, for grade levels, for parts of subjects or grades, for units or projects Modern new type guides will state objectives by growth levels and will indicate that these are directional progress goals The following questions may be asked

1 Are the objectives stated in the form of textbook pages to be covered wider segments of subject matter to be covered amounts of facts or levels of skill to be acquired?
2 Are the objectives stated in the form of pupil growth in desirable understandings, attitudes, appreciations abilities skills, functional information?
3 Are the objectives prescriptive by grade or other arbitrary levels or are they directional progress goals?

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detailed criteria for some items may be found in the literature, or better can be developed as needed by students and field workers *Second*, no pretense is made of presenting the background for the criteria The background is enormous and could not be included if desired Familiarity with this background is moreover a legitimate assumption when dealing with advanced students Wide reading in the area of course writing and curriculum improvement has doubtless accompanied previous courses and field work including workshop procedure The purpose of the present discussion is to furnish quick summary of the general initial attack to be made on the evaluation of courses and guides

[18] Extensive reading materials are available on derivation and statement of objectives An abbreviated summary will be found in Burton, *The Guidance of Learning Activities*, *op cit*, pp 23 24, 266 275 Extended discussion is found in Caswell and Campbell, *op cit*, Chs 6 8

4 Were the objectives determined by individual or small groups judgment, or derived from study of the learners and from actual instructional practice with all persons participating?

A course is good to the extent that the specific objectives are stated in terms of pupil growth and achievement, are designated as directional progress goals, and are cooperatively derived

We may then evaluate the objectives themselves by determining the degree to which they are

1 *Dynamic*, indicative of action and likely to promote attack by normal learners
2 *Socially desirable* that is recognizable progress goals leading toward outcomes accepted by society
3 *Achievable* by the indicated maturity levels in the light of available resources
4 *Developmental* that is leading to constantly higher levels of growth and achievement
5 *Varied* enough to care for different levels of ability and different aspects of the individual learner
6 *Limited* enough in number and scope to permit definite organization for their accomplishment without diffusion of effort
7 *Susceptible to evaluation* Can evidence of pupil growth be derived?
8 *Worded clearly, definitely,* and *consistent* in form

The selection and organization of content Makers of teachers guides are confronted with four questions

1. What is to be the scope, or area, or coverage of the course?
2 How is content to be selected to fill the scope or area?
3 How is the content to be arranged? Under what categories may it be placed?
4 How is the content to be arranged in a sequence? (This is often referred to as gradation)

Strength and weakness in courses of study may often be traced directly to the methods used in answering these questions

Scope The general method of determining scope in traditional courses was adult judgment on "what will be needed in life" Judgments were subjective and often arbitrary made by individuals or by small selected groups Judgments derived from discussion within larger groups is a more recent development This method of determining scope usually results in determining content and sequence through naive acceptance of text or courses already in existence

Arbitrary judgments began to give way to those with some semblance of logic A general aim was set up and broken down into a hierarchy of sub-aims The material adjudged necessary to achieve these aims became the scope of the course

Search was made for children's interest related to the formal culture materials possessed by society A series of "centers of interest" was then set up and determined the coverage of the course

The necessity for relating education ever more closely to the life of the individual and of his society led eventually to various forms of social analysis.[19] The basis for the scope of a course was to be found in the necessities of life as revealed by analysis, not by arbitrary judgment. This is a distinct advance.

The writers of modern guides are less and less interested in delimiting a course in terms of scope. They prefer to present as great and as rich a selection of materials as possible, fitted to the needs of children at different levels (either grade or growth).[20] Teachers may then organize many different curriculums with many different groups of learners.

The very poorest courses are those using the first method listed below. Traditional courses may be judged to be better as the procedures used rise through the list. Scope is determined by

1. Adoption of existing texts
2. Setting up subject matter wider than one or a few texts would indicate
3. Setting up a general aim with analysis into a hierarchy of sub aims
4. Setting up centers of interest based on children's interests in given areas of culture materials
5. Analyzing social life to determine the needs of members of society, these needs then become the scope
   - *a* Theoretical logical analyses as for instance by Spencer, by Lynd, by other anthropologists, sociologists, educators
   - *b* Factual surveys of community or regional needs
6. Analysis of the personal life of individuals (theoretically or by actual investigation) to determine needs and problems which then become the scope

A combination of 5 and 6 often appears in the better traditional courses.

Modern guides are likely to use the two latter methods but are moving toward an organization which does not delimit scope.

An enlightening exhibit is derived from comments by the writer's students as they have analyzed many scores of courses.[21]

> The distance from (an Eastern state) to (a Rocky Mountain state) is approximately 2 500 miles. The distance between them in understanding methods of determining scope for their courses of study is infinitely greater.
>
> Scope and its determination are not mentioned anywhere in the course. No pattern at all observable.
>
> (Statement from a course.) Few educators have sufficient mastery of the scope or body of human achievement to enable them to choose unerringly only the best and most adaptable bodies of subject matter to record these in def

[19] See Appendix A and references therein for brief quotations from the essays by Spencer, by Lynd, and the productions of various committees dealing with social analysis and with scrutiny of individual problems and needs.

[20] A good example of this is the recently published course in art by the Wilmington, Del. schools.

[21] Names of schools and courses are omitted since some of the comments are sharply condemnatory. Many good practices were found. Exercises at the close of this chapter will direct students and field workers to similar analyses.

inite and durable forms for use in teaching We therefore accept the subject materials which have been tried for many years in various places

(A modern group using the premise above would arrive at the opposite conclusion that large bodies of diverse materials might be provided scope to be determined in the curriculum not the course)

The method used to determine scope in the course of study was to examine the content and organization of many courses and to select from them those areas which would contribute most to the life of the pupil

(This is the old "paste-pot and shears method The 'best' is selected and becomes the scope and content of the local course The fact is overlooked that no material can be best as it stands It must be best for a given set of circumstances, hence must be derived within that situation)

The scope for the course in Latin in High Schools is determined by changes in the Latin requirements for the college entrance examinations

The scope of the course in was determined clearly through logical analysis of subject areas The problems and needs of the individual within current society were completely ignored

Scope was determined in the course in homemaking education through the experiences of the teachers in working with pupils and adults and in the homes of the community Problems common to individuals and to families were selected

Scope was determined in the courses produced in the work shop through listing the pupils problems as given directly by the young people

Scope of the ninth-grade mathematics course was determined by investigating to what extent traditional content in a first year algebra course would contribute to meeting the needs of adolescents in the basic aspects of living and in developing those characteristics of personality which are desirable Effort was made to organize the year's work around problem situations which might arise in some of the basic aspects of living (A pretty difficult search, is the comment by the student)

Scope was determined by basic life activities carried on by all people without reference to particular time or place

The scope of the course in arithmetic was determined by our belief that experiences are vital to real learning and that meaning and use are initial steps in the learning process Scope was outlined by a series of experience units on the first and second grade level, functional problem situations on the third, fourth, fifth, and sixth grade levels

The courses of study in are organized more and more around the problems of our people, young and old Fifteen critical factors have been selected We believe there is no one best choice of material for each grade level We are quite willing to include within the scope whatever proves useful in practice with the children

The method of determining scope was to accept subject-matter outlines or units which were based upon pupil interests

The scope for the social studies course was determined by two years' study and experimental teaching on the part of members of the committee (The bulletin, however, fails to describe the nature of the experimentation carried on)

The selection of content Who does this? Under what principles and by what methods? What differences are there in this between traditional and modern courses? Wherein does the content or its method of selection eventually interfere with or enhance learning and growth?

Methods of determining content[22] may utilize in a given case any or all of the following persons or processes

The opinion of subject specialists
The analysis of pupil needs
The analysis of community needs
The analysis of community resources
The study of current trends in society in education
The results of experimentation, testing and ordinary try-out
The analysis of curriculum studies and of textbooks
The study of newer practices in curriculum construction and in teaching

The general basis for selecting content in traditional courses is, as with scope adult judgment guided by varying amounts of evidence The general bases for selecting content for modern course bulletins are, on the one hand, analyses of the needs of individuals, studies of maturation levels and on the other hand studies of the aims and needs of the social group

The more direct techniques for determining content are as would be expected closely related to methods for determining scope Content may be selected through

1 Adoption of texts, or acceptance of courses prepared elsewhere, or patching together pieces borrowed from several courses
2 Determining through logic the materials theoretically necessary to fulfil an accepted general aim with its hierarchy of sub-aims
3 Determining through logic the materials theoretically necessary to meet the needs revealed by studies of childrens interests in formal culture materials
4 Determining through logic the materials theoretically necessary to meet the needs revealed by various types and degrees of social analysis

Content is selected for modern guides through

5 Deriving from actual experience in guiding learners the materials necessary to meet their needs and problems and to introduce them to demands of organized society

The traditional methods 2, 3, and 4 are made less theoretical by try out of materials in the classroom The modern course maker often uses 3 and 4 with try out as preliminary to or simultaneously with 5

The first method was long ago ridiculed as 'paste pot and shears' procedure but still persists The erroneous assumption is made that 'best" materials can be selected from other courses or found in texts The best materials for any given situation must be developed in and for that situation

The strictly traditional methods are used by conservatives who do not

[22] Detailed discussion of the various sub processes in selecting content are widely available See Caswell and Campbell *op cit* Ch 10, John K Norton and Margaret A Norton, *Foundations of Curriculum Building* (Boston, Ginn and Company 1936), Ch 3 and scattered through Chs 4 16
The periodical literature will supply many specific accounts

recognize the dynamic nature of life and of education, by honest but uninformed leaders, or by lazy and inert persons Materials in existence are accepted uncritically They are reshuffled and rearranged No question is raised as to whether any of this should be taught at all, though much of it has been useless for a long time New material is introduced into such courses with difficulty The interference with learning and with education is obvious

Courses are judged to be good to the extent that content is selected in terms of the data of social analyses, and under the aim of meeting the needs of the learners at the time and of society ultimately

The subject-matter outline and untrained teachers The outline of material to be covered was the chief feature of traditional courses The modern course has eliminated this entirely, substituting an extensive listing of many varied materials from which a teacher may choose *The real danger in the subject matter outline is that it is accepted as prescribed, is "covered" by the teacher, is memorized by the pupil* Nothing could be worse in ordinary situations

A question may be raised however, concerning the use of such an outline with teachers who are hopelessly undertrained who are working in remote rural regions where supervisory aid is practically nonexistent and where facilities are unbelievably meager A subject-matter outline may be far better here than a modern course which calls for much training insight, and ingenuity The subject matter outline, if used in such cases, must be supplemented copiously through state department bulletins fitted to the teachers' needs and abilities Methods of using even the meager resources of remote communities may be pointed out, simple illustrations of the uses of modern materials may be attempted

Arrangement of content into categories or divisions Traditional and formal courses on the elementary level are usually organized into *subjects* Correlation may or may not be suggested The subjects are in turn organized under the principles of formal logic This type of organization is of value to mature learners but not with children Immature learners are in fact handicapped by this form of organization

Major *themes, topics,* or *generalizations* may be used as categories Subject matter is still the basis of organization but the theme or topic is usually broader than the segments of a formally organized subject field Themes or topics or generalizations usually run through the entire course thus making for better articulation between elementary and secondary schools Correlation and even more functional organizations are facilitated whether suggested in the course or not

Elements of organization similar to the preceding are *subject-matter units* These may appear in either elementary or secondary courses They are usually, though not always, broader than themes or topics Functional use of subject-matter may be extensive

Categories still broader are known as *broad fields* These are usually

the physical sciences, the biological sciences, the language arts, the fine arts, and so forth

The methods of social analysis brought attempts to organize the curriculum under lists of cultural anthropological needs The best known terminology for these *social needs* is that introduced by Spencer and modernized into the "Seven Cardinal Principles" Terms were Maintenance of Health, Earning a Living, Being a Member of a Home Participating in Social and Political Activities Exercising Religious Impulses, and so forth Courses are not easily arranged under these headings

A later departure of similar nature is the use of *social functions* as categories These are socio economic in emphasis and include, Production and Conservation of Life, Property, and Natural Resources, Production of Goods and Services Consumption of Goods and Services, Recreation, and others

A scheme of organization often found in the secondary core course of the modern type is that of *personal problems* How May I Adjust to the School? (find my way about utilize advantages secure guidance, plan program etc) How May I Make Friends and get Along with Others? How May I Determine my Capacities and Limitations (and Improve my Personality)? How May I Prepare for Marriage and Home Responsibilities? How May I Protect Myself against Propaganda?

The modern secondary course usually has two definite and related divisions *First* is the core course with chief emphasis upon life adjustment problems, and *second*, a selection of subjects or of broad fields for the specialized areas Traditional secondary courses are usually confined to subject divisions Movements toward modern courses include functional organization within subjects introduction of new subjects in answer to needs, correlation fusion broad fields and finally the addition of a general core course

The modern elementary guide is unified substituting *experience units* for subjects Experience units cannot be organized actually in advance of use The course units are therefore more properly *possible* or *suggested* experience units A wealth of materials and learning experiences is included

Supplementary comment upon scope and content of curriculums-in-operation Scope in the curriculum unlike that of the course, cannot be determined in advance or written down Scope of the curriculum is determined finally by the scope of the learners experiences in satisfying his needs or solving his problems within the controls of the given setting for learning

Content for modern curriculums is selected through cooperative discussion of learners and teacher while planning and carrying on learning experiences Content in traditional curriculums is selected usually from the written course with varying degrees of supplementation by individual teachers The logically organized materials of the cultural heritage may

often appear in modern curriculums Subject matter beyond the maturity and experiential background of the learner may sometimes be demanded This is quite natural in modern curriculums The teacher may then seek for pictorial, graphic, or other aids to comprehension, may prepare original material herself within the comprehension of the learners, or exercise guidance toward simpler materials if available

·*The determination of sequence, or the gradation of subject-matter and experiences* The eternal questions appear is subject-matter already in existence accepted or is new material developed in terms of needs? Is the material related to school levels only in terms of logical sequence within the material, or is the growth of the learner primary with placement determined by the needs and maturities of growing learners?

The committee which prepared the yearbook on *Child Development and the Curriculum* [28] presented relationship between course materials and the learner within accepted subject-matter divisions The defense was that this was necessary by certain stated practical considerations The committee then stated its firm belief in an integrated or organic use of materials in the actual classroom (that is, in the curriculum) The chapters as a rule do present a wide range of materials covering several school levels instead of rigid allocation The critique in the final chapter sharply challenged this procedure The growth process of individual children was upheld as the primary fact, despite fragmentary data with placement of subject-matter subsidiary to the needs of growth in given instances It is possible that two approaches may be complementary The logic of the subject-matter, particularly the increasing complexity of concepts or skills as they broaden, the eventual levels of competence do need recognition The readinesses, interests and abilities of learners are also inescapable factors in arranging materials for use

The course writer who accepts subject matter as primary asks

1 What materials should be allocated (in arithmetic spelling social studies) to a given grade level?
2 When should reading start? When should oral reading be subordinated to silent? Should phonics be included in the first grade the second grade or not included at all?
3 When should formal arithmetic begin immediately in the first grade or delayed to second third or sixth grades? Should short division be placed ahead of long division?
4 What spelling words should be allocated to what grades?
5 Where should formal grammar be placed?
6 Should algebra be taught before geometry or could this be reversed to advantage?
7 At what level should sex instruction be introduced? Courses in the family and its organization? In courtship? In personality analysis?

[28] *Child Development and the Curriculum, Thirty Eighth Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co 1939) Part I Whole volume excellent For general arguments see Section II prefatory note by Washburne and the critique in Ch 24 by Mills

8 Can materials from algebra, geometry, and trigonometry be placed together to precede organized mathematics courses?
9 Can "general language" courses be successfully organized to precede systematic study of a language?

The guide writer who sees merit in both subject-matter organization and the nature of the learner as determinants [24] may ask

1 Does a preliminary program enhance reading readiness or not?
2 What functional number experiences may come in kindergarten second grade and so forth?
3 What use should be made of spelling lists in connection with words which pupils need and ask for in pursuing their own problems and interests?

The guide writer who accepts growth needs as primary may ask

1 Can materials ever be allocated definitely to a given school level?
2 What will happen to arithmetic materials if offered to pupils well in advance of readiness or ability? (Odd as this sounds it is an important question.)
3 What materials are necessary at any time or place which will contribute to the growth and achievement of a given learner or group?

Sequence or placement of materials was easily determined in the older traditional courses. The assumptions were that (1) a logical sequence was the learner's sequence, (2) all learning proceeds from simple to complex, and (3) there is such a thing as a "third-grade child," or a "seventh-grade child," and so forth. Critical analysis and later research revealed that these assumptions are not absolutes.

Traditional courses may be judged to be better as they move up through the methods of determining sequence.

1 The acceptance of a text determines sequence of materials. (The author of the text may or may not have used a reputable method of determining sequence within the book. Some seem to have used no method.)
2 The frequency of practice in existing courses is accepted.
3 The judgment of specialists on certain items is accepted.
   a Logical sequence
   b Nearness in time and space
   c Increasing complexity of a concept, a skill, or other outcome
4 The judgment of specialists and of classroom workers determines the theoretical relation of materials to levels of maturation, and to degrees of integration of experience within the learner.

[24] In addition to the *Thirty Eighth Yearbook* mentioned above other volumes supply excellent discussions of sequence or gradation and of time allotments.
Caswell and Campbell *op cit* Ch 11 contains extensive analysis of research.
Norton and Norton *op cit* Chs 4 16 contain many references to research studies.
The Implications of Research for the Classroom Teacher, Yearbook of the American Educational Research Association, jointly with the Department of Classroom Teachers (Washington D C National Education Association 1939) References on gradation scattered through Chs 8 14 with critical comment.
Current studies can be found in appropriate issues of the *Review of Educational Research* and in *The Education Index*.

Sequence in the modern guides is based on sounder principles and facts which are emerging out of research on certain items

1 The characteristics of pupil maturation and growth
2 The readiness of the learner
   a Physiological
   b Mental
   c Experiential
3 The interests and needs of learners
4 The presence of difficulties in learning
5 The effect of failure upon learning
6 The effect of knowledge of success upon learning

Facts are far, far from adequate but many factors now modify our early bases for judgment such as

1 Wide variability in the capacities and interests of any group of pupils on any level appears
2 Learning does not always proceed from simple to complex
3 The initial attack upon a given problem subject or area of experience may be more difficult than much that follows Difficulty steadily decreases in some areas
4 Intensity of interest may greatly affect the learner's effectiveness in surmounting difficulties
5 Considerable variability of interests and abilities develops within any one learner
6 The basic type of curriculum affects the learner's reaction hence affects placement of materials

Fixed allocation and absolute determination of sequence is not possible nor desirable Many traditional courses do allocate certain material rather definitely in defiance of such facts as we have bearing on this Modern guides tend to supply large bodies of material which are usable over several levels Large place is left for teacher and pupil selection from these materials guided by certain controls both within the nature of materials and within the nature of growth

Courses may be judged good in the degree to which they meet certain criteria

1 Broad general guides are set up within which learning groups may determine their own sequence
2 A very wide variety of materials and experiences is suggested organized into large units or areas of experience, or in broad fields or within subjects, from which selection may be made
3 Adequate assistance from supervisory leadership and other specialists is clearly provided to be utilized by learning groups as they develop curriculums

Illustrations of gradation of materials One or two cases may be of help here The materials are from the formal skill subjects Illustrations of placement for extensive content materials cannot be reproduced in brief space Many discussions are available in periodicals, yearbooks, and in teacher guides themselves

Horn, in attacking gradation of words in spelling illustrates the use of

both criteria, the worth of the subject-matter, and the ability and interest of the learner. He states first four fundamental considerations in the original choice of words [25]

1. The relative importance of given words as measured by their permanent value
2. The difficulty of the words for learning
3. The logical relationships between words, grouping of words around a common problem and the progressive building of derived words from base forms
4. The use of words in the pupil's own present writing

Four other questions arise as the actual placement is approached

1. At what point is use by children frequent enough to justify introduction into the course?
2. What is the relative weight that should be given to frequency of use by children and frequency of use by adults in determining placement?
3. How deal with such words as mumps recess measles which are frequently used by pupils but which are not among the first 500 words in adult usage?
4. How deal with such words as favorable fundamental gratitude which are frequently used by adults but rarely by children, even in the seventh and eighth grades?

The answers developed by Horn are

1. In each of the first six grades choose the basic word list from among words most important in the writing of adults and most important in the writing of children at that grade level
2. Words frequently used by children but of marginal value to adults may be placed in supplementary lists or left to incidental teaching
3. Words of great importance to adults but infrequently used by children may come toward the end of the period of systematic instruction
4. The organization and sequence of words within a grade may be determined partly by the relative frequency of use in that grade, partly by logical considerations, and partly by difficulty

The next illustration from arithmetic was developed by Brueckner and his students

ACCEPTED GRADATION OF ARITHMETIC PROCESSES

Mental Age	*Whole Numbers*	*Fractions*	*Decimals*	*Per Cent*
6-7	1. Counting 2. *Identifying* numbers to 200 3. Writing numbers to 100 4. Serial idea 5. Using numbers in activities of all kinds	1. Contacts in activity units and in simple measurements		

[25] *Encyclopedia of Educational Research* (New York: The Macmillan Company, 1941), p. 1170. By permission of The Macmillan Company, publishers.

ACCEPTED GRADATION OF ARITHMETIC PROCESSES—*(Continued)*

Mental Age	*Whole Numbers*	*Fractions*	*Decimals*	*Per Cent*
7 8	1 Reading and writing numbers 2 Concept development 3 Addition and subtraction facts through six	1 Recognizing fractional parts	1 Tens as basis of simpler system 2 Recognizing money	
8 9	1 Addition and subtraction facts and processes 2 Multiplication and division facts through threes sometimes also fours and fives 3 Even division only	1 Extending uses of fractions in measurement 2 Finding part of a number	1 Using dollars and cents 2 Zero as place holder	
9 10	1 Completion of multiplication and division facts 2 Uneven division facts and process 3 One figure multipliers and divisors	1 Extending use and meaning of fractions	1 Manipulating of dollars and cents in all processes	
10 11	1 Two figure multipliers 2 Two figure divisors when estimated quotients need not be corrected	1 Addition and subtractions of like fractions only	1 Addition and subtractions of decimals through hundredths only	
11 12	1 Three and more figure multipliers 2 Two figure divisors when estimated quotient must be corrected	1 All processes of fractions completed including unlike fractions	1 Multiplication and division begun	
12 13	1 Three figure divisors all types of difficulty	1 Extending uses of fractions	1 Completion of work in multiplication and division of decimals	1 Cases I and II percentages and their application
13 14	1 Extending uses of whole numbers	1 Extending uses of fractions	1 Extending uses of decimals	1 Case III in percentage

An ungraded course in arithmetic has recently been issued by the New York State Education Department Material is arranged in its own sequence but with no reference to arbitrary school levels It is available for pupils and teachers as they need it This bulletin is the first to utilize

the "directional progress goal" concept popularized by Hopkins This revolutionary development will be followed it is hoped by many other illustrations A course in reading published by the Ohio Department of Education makes little mention of either selection or gradation of subject-matter, but is rather a monograph on the teaching of reading The teacher, it is realized, can find far more subject-matter than he can use The San Diego County *Trends in Elementary Education A Teachers' Guide* is still another unique document It is an extensive, beautifully illustrated book outlining trends in elementary education with definite cross reference to specific teaching problems in the social studies, the language arts (oral and written communication, reading, spelling, handwriting), and arithmetic This is one of the most imaginative and creative teacher guides to appear

Time allotment Older courses usually gave definite time tables showing how many minutes per day should be devoted to the various subjects Methods used to determine this were usually past practice as shown by frequency the judgment of specialists, research upon attention span Definite time allotments of this type often interfere with learning and with the development of a good curriculum A more modern practice is to state time allotments by the week or month, to be distributed as teacher judgment directs A still more modern tendency is to shift attention from time allotment to pupil growth and achievement The aim is to promote the growth of each pupil at his rate and in terms of his capacity Rigid time allotments are not compatible with this The modern guide for teachers facilitates this type of procedure

Provisions for individual differences Traditional courses often contained no reference to differences among learners All were to learn what was provided at the same rate, or were to fail Research on the type and number of individual differences brought about a number of mechanical adjustments based on the subject-matter mastery concept Courses may be judged poor which do not go beyond the following

1 Minimum essentials for all, plus two or more levels of achievement beyond the minimum requirements differentiated assignments
2 Various systems of grouping to accommodate different levels of ability and rates of learning two- or three track systems
3 Suggestion on the secondary level that the number of subjects carried by individuals be varied

Slightly better are

1 Provision for individual progress in some types of learning similar to the Winnetka or Dalton plans
2 Voluntary projects in or out of class

The modern course writers turn away from juggling subject matter to provisions for individual differences in terms of the learner himself Guidance comes from the research, mentioned earlier, on maturation,

readiness, interests, difficulty, failure and success Courses may be judged good in the degree that they meet these criteria

1 Experience units are suggested with explanation of their natural provision for wide differences in readiness for many levels of ability for differences in interests differences in rate and types of growth
2 Exploratory and try-out experiences are provided for increasing levels of maturity
3 An advisory service and suggestions are clearly indicated for aiding pupils to determine their own interests and capacities
4 A diagnostic and remedial procedure is embodied within the course
5 The study of special cases by specialists is indicated and the sources of help indicated
6 Administrative techniques of various types are indicated

Several of these can be extended in considerable detail (See for instance the chapter on "Improving the Interests, Attitudes, and Work Habits of the Pupil ")

The suggested organizations for teaching purposes The usual general procedures suggested are (1) the typical assign study-recite test sequence, (2) the subject-matter unit, and (3) the experience unit [26] Criteria for judging each of these are widely available in the general literature and space will not be taken to reproduce lists here (See samples in Chapter VIII)

The suggested learning activities Learning activities included in modern courses and curriculums are numerous and varied in sharp contrast to the limited and formal experiences within traditional courses and curriculums Listening, reading, reciting, answering questions, writing papers, and using references constitute the bulk of learning experiences in formal situations Good traditional teachers do, of course introduce into their curriculums increasingly more varied experiences borrowed from modern organizations The total number of possible types of learning activities available runs well over seventy Diederich for instance presents approximately 177 possible activities organized in eight groups [27] Other lists are available

Courses are examined to see what type of learning activities is implied or directly suggested how many, and in what variety Learning activities observed in curriculums-in-operation may be scrutinized to see if they are

[26] Explicit criteria for the assign study recite test procedure will be found in Burton, *The Guidance of Learning Activities op cit*, Chs 11 19
Criteria for subject matter units will be found in the Burton reference, Chs 9 10 also in Hopkins *op cit* Chs 1 2 6 Caswell and Campbell *op cit* Ch 15 and in Edgar M Draper *Principles and Techniques of Curriculum Making* (New York D Appleton Century Company Inc 1936) scattered through volume as well as in periodical literature

[27] Paul B Diederich, A Master List of Types of Pupil Activities *Educational Research Bulletin* Vol 15 (Ohio College of Education Ohio State University, September 16 1936)
Burton *op cit*, see pp 30, 288 290 for quick summary

1 Recognized by children as usable in achieving their purposes
2 Recognized by the teacher as leading to socially desirable ends
3 Appropriate to the maturity of the group challenging, achievable, leading to new learnings providing for application of old learnings
4 Varied enough to provide for balanced development of the learner, many types of individual and group activity
5 Possible within the resources of school and community
6 Varied enough to provide for individual differences within the group

The suggested techniques for evaluation of outcomes Many traditional courses either neglect this item or give merely a list of typical formal standard tests, plus a few suggestions for improving the traditional essay examination Modern guides give extensive lists of modern evaluational instruments, together with many suggestions for application and interpretation Modern guides also encourage the development by the teacher of her own evaluational techniques suited to her outcomes The instruments themselves have been adequately presented in Chapter VI

The bibliographies, lists of sources of material, audio-visual aids Courses increasingly include extensive lists Criteria have been presented in Chapters X and XIV

Evaluation of courses through summaries of opinion Valuable evidence showing worth or effectiveness in a course of study may be found in the opinions of teachers and pupils using the course Questionnaires or interviews may be used to secure data An early study conducted by Barr [28] asked teachers to state factors which facilitated or interfered with use of the course, what materials were most useful least useful Many specific details were covered Tabulations of the replies revealed the strong and weak points in the course

Evaluation of the methods used in producing documents and guides for teachers A professor of history in a well known university was heard to say 'I will write the state course of study in history for high schools during the last two weeks of my summer vacation The illustration is admittedly extreme, but course writing by individuals and small isolated committees still appears The course is seen as an outline of prescribed materials, or as a list of courses to be covered sometimes even as a series of assignments in one book or a few references

Modern programs of course construction, in striking contrast, include the cooperative efforts of many persons and continue over the years Desirable methods of course development, of editing and writing materials, have been hinted at throughout preceding pages A summary will suffice here Courses of study are good to the degree in which they meet the following criteria for methods of construction

1 The course should grow out of the aims and needs of the learners and of the community in which they live with due regard for the nature of the great society beyond the local community

[28] A S Barr Making the Course of Study *Journal of Educational Method*, Vol 3 (May June 1924), pp 371 378, 427 436

2 The course content should be derived from the instructional activities within the system, from casual or experimental try-out, from the continuous in service study by the staff
3 The instructional activities from which the course grows will themselves be the product of cooperative group effort by a personnel as wide as the community itself and as wide as the scholarship which is relevant to the problem Professional leaders of all types specialists in various fields, teachers, pupils, parents, interested lay groups, community organizations and agencies will participate
4 The course materials should be edited and written by individuals and committees specially selected because of their abilities in these specialized tasks Preferably these individuals will be found within the total group which developed the instructional program from which materials are drawn
5 The machinery for course production should be developed on the spot by the personnel concerned, and to fit needs as they arise

Courses do not always set forth explicitly the methods used Examination and inference will be necessary

The foregoing discussion is limited to the listing of criteria which contain indications of methods to be used Extended discussion of the actual procedures in producing courses and guides appears in Chapter XIII

SECTION 3

ANALYTIC OUTLINES FOR SUMMARIZING THE CHARACTERISTICS OF DOCUMENTARY GUIDES FOR TEACHERS

The detailed analysis in preceding pages is a study and training device A final report on a course or guide will usually summarize in abbreviated form the findings derived from extended analysis of details

Illustrative summary outlines for guiding evaluational reports Scores of these are in use No one of them covers all items nor satisfies all individuals Desirable procedure in a given situation is to develop an outline cooperatively Students in the writers' seminar groups developed a list of questions calling for the citation of definite evidence The weakness of mere identification, or of "yes' and no' answers is avoided Evidence is derived through inspection and analysis, and judgments based thereon

Question List for Analysis of Teachers Guides
(Burton and various student groups)

Cite specific evidence found within the document that
1 Its general viewpoint and aim are in accord with democratic ideals and principles
2 Its general viewpoint and aim are in accord with the known facts concerning
   a The nature of the learner his interests, needs, typical activities, maturation levels, and so forth
   b The nature of society dynamic and emergent, working toward ever higher values, controlling and regulating as well as emancipatory and creative in its institutions

c The nature of the learning process, many and varied learning experiences in contrast to few and formal ones

3 It is based on the nature and needs of the community for which it was developed
   a A comprehensive community survey was made
   b A procedure for the continuing study of the community appears
   c The learning experiences provide for adequate participation in the life of the community

4 It is emergent experimental and evolutionary, constantly in revision, taking account of
   a The constantly increasing fund of facts about the learner and learning
   b The evolutionary nature of our social, political, and economic institutions and processes

5 It is organized to provide actual participatory experiencing by the learner as the method of growth, using vicarious experience when direct experience is impossible

6 Its range of experiencing and of materials is as wide as the life of the learner himself as wide as the organization of society itself

7 It is coordinated with out-of-school institutions and processes which also provide learning experiences

8 It is organized into units which are based both upon pupil purposes and socially desirable outcomes

9 It emphasizes the development of controls of conduct which grow out of understandings, attitudes appreciations abilities

10 It provides for analysis, criticism, and experimental evaluations of materials, learning experiences, and outcomes

11 It provides sound differentiation to meet differences among learners

12 It provides for flexibility in operation, through variation in schedules, wealth of materials pupil freedom variation in pupil contributions

13 It possesses breadth as shown by avoidance of the so-called minimum essentials concept, by provision for creative work provision for appreciations and understandings beyond the commonplace and beyond the fact and skill learning in the same fields

14 It contains an adequate collection of aids to the teacher such as
   Sources of materials
   Reference books and pictures
   Illustrative units
   Diagnostic procedures
   Tests of measurable items
   Methods of evaluation for items to which limited objective tests are inapplicable

Another analytic method of listing items and findings which present certain characteristics of courses of study was developed by Brueckner for use in the New York survey of state school systems Still other lists are available in the literature, one of the best known being that by Stratemeyer and Bruner [20]

[20] Florence B Stratemeyer and Herbert B Bruner *Rating Elementary Courses of Study* (New York Bureau of Publications Teachers College, Columbia University 1926) Certain refinements in the original standards will be found in H B Bruner Some Requirements of the Elementary School Curriculum, *Teachers College Record* Vol 39 (January 1938) pp 273 286

See also the Mort Cornell and the Mort Burke Fish references earlier in this chapter pp 405 409

ANALYSIS OF SELECTED STATE COURSES OF STUDY *

	Arithmetic	*History*	*Geography*	*Health*	*Art*	*Spelling*
Date of publication	1924	1933	1931 32 1935	1936	1927	1929
Aims and objectives						
General philosophical	No	Yes	Yes	Yes	Yes	No
Specific analytical sub subject	Yes by grade	Yes by grade	Yes	Yes	Yes	Yes
Attitudes interests, personality	No	No	No	Yes	No	No
Methods of procedure						
Outline of subject matter	Yes by grade	Yes by grade	Yes by grade	Yes general	Yes	Yes
Helps on method	Yes	Yes	General	General	Yes	Yes at beginning of course
Scientific evidence cited	No	No	None	Many references	No	Yes
Suggested activities						
Teacher	Some	Yes	Yes	Yes	Yes	Yes
Pupil	None	Yes	Yes	Yes	Yes	Yes
Interrelating subjects	Yes	No	Yes	No	Yes	No
Flexibility	None	None	None	Yes	Incidentally	Method does
Lists of books and supplies						
Textbooks	None	None	None	Yes	Yes	None
Supplies and equipment	15 kinds	No list general	Quite specific	Yes	Yes	None
Teachers references	Yes	Yes	Yes	Yes	Yes	Yes
Tests	Four	Nine	None	Yes	None	None
Type lessons not bits of lessons						
By subject	None	None	None	Yes	None	None
Stressing relationships	None	None	None	None	Rarely	None
Time allotment	Yes	No	For some types	No	No	Yes
Work divided into definite periods						
Definitely divided by years	Yes	Yes	Yes	No	Yes	Yes
Not definitely divided	No	No	No	Yes	No	No

* L. J. Brueckner *The Changing Elementary School* (New York: The Inor Publishing Co., 1940), pp. 110-111

	Arithmetic	*History*	*Geography*	*Health*	*Art*	*Spelling*
Basis of development						
Specialist in department	No	No	No	Yes	On Committee	On Committee
Committee	Yes	Yes	Yes	No	Yes	Yes
Extensive teacher participation	No	No	No	Yes	No	Not indicated
Reviewing committees	No	Yes	Yes	No read by a number of persons	Yes	Yes
Bibliographies of supplementary books						
Teachers informational references	None	Yes	Yes	Yes	Yes	Yes
Pupil references	None	Yes	Yes	Yes	Yes	No
Professional references	Yes	Yes	Yes	Yes	Yes	Yes

Summaries may be in paragraphs of running discourse. The statement following is from a seminal report on a history course used in a Massachusetts city:

This is a traditional course not related in any way to the life experiences of the pupils to their interests and abilities individual or social growth to their community to current conditions. While it is remotely possible that a creative teacher could use it constructively the form and content do not encourage the idea that this would occur and certainly no aid either in viewpoint objectives, or suggested procedures is included. It is wholly fact centered and takes no account of the pupil as a person.

Scope is determined by the subject matter outline which is adult conceived and prescriptive. The subject-matter is divided into topical units with no apparent functional basis and consists of historical facts arranged in an arbitrary sequence under such clichés as George Washington our First President, Abraham Lincoln The Savior of Our Country Theodore Roosevelt A Strenuous American. There is no evidence in the printed outline to indicate how the teacher is to achieve the listed aims and purposes of the course.

An excerpt from a report dealing with a course in art used by a Delaware city presents a contrast:

This course represents probably the very best in modern development. The aim is clearly one of general education and not the specialized development of talent within the field of art. Fixed scope and content have been avoided, replaced by a wealth of material from which teachers can draw inspiration and definite assistance for many different problems. Objectives, materials, and suggestions for teaching are at the beginning based squarely upon the abilities and natural interests of children. The principles of readiness and maturity are everywhere apparent. Art principles and techniques will develop out of the learner's own activities. Diversity of interest and ability are amply provided for.

Extensive use of art illustrations found within the community is indicated (Many other points are made)

Still other reports contrast course writing by individuals or small specialized committees, with development by extensive staff participation

Astonishing contrasts appear as we examine courses the country over Some exhibits would cause black despair were it not for the existence of truly inspiring exhibits from elsewhere The writer has on file course bulletins in history, geography, and literature printed in 1911 and used in a small Massachusetts community Drill materials originally printed in 1880 are currently used in another community Modern texts and alert teachers have circumvented these incompetent materials in many cases but not everywhere Side by side with these is a state bulletin from Maine, "Teaching Art in the Modern Way" Developed by a committee of teachers out of their own problems, containing excellent illustrations of childrens work and dealing with specific problems in a definite way, the bulletin of a few mimeographed pages has influenced teachers out of all proportion to its size Deft references to basic principles accompany the specific discussions Bulletins in some systems have been unchanged for decades, in others, a continuing series of dynamic materials is constantly emerging Improvement in some communities will not take place, barring miracles, within a foreseeable time in others, continuous programs of vigorous, unselfish effort are under way

One of the most extensive work sheets for use in analyzing teacher guides was developed by Leary in her survey of courses some years ago [30]

CHECK LIST FOR ANALYSIS OF COURSES OF STUDY

	Yes
A *Construction of Course*	
1 Agency	
a Teachers	
b Principals	
c Board of education	
d Superintendent	
e Supervisors	
f Curriculum committee	
g School and lay groups	
h Special curriculum staff	
i No information given	
2 Revision	
a Continuous	
b Suggested	
c Determined by community change in	
(1) Population	
(2) Occupation	
(3) Environment	
(4) Resources	
(5) Social values	
d Determined by recognized inadequacies in standards of attainment	
B *Objectives*	
1 General	
2 Specific	
3 Emphasis on	
a Habits	
b Skills and knowledge	
c Attitudes, appreciations understandings	
d Enriched living and social well being	

[30] Bernice E Leary 'A Survey of Courses of Study and Other Curriculum Materials Published Since 1931' Bulletin No 31 (Washington D C, United States Office of Education 1937)

Yes

- e Development of personality
1 Stated as
- a Pupil goals
- b Teacher goals
5 Validity Recognizes
- a Children s needs interests, capacities
- b Adult activities, needs and interests
- c Social needs of
  - (1) Immediate community
  - (2) Society at large
- d Findings of research
- e General educational activities

C *Organization*

1 Level
- a By single grade
- b By group of grades
- c By all grades

2 Subject
- a Single subject
- b Group of subjects
- c Correlation or integration
  - (1) Complete
  - (2) Partial

3 Unit organization
- a Subject matter
  - (1) Topical
  - (2) Generalization
- b Human experience
  - (1) Complete
  - (2) Center of child interest
  - (3) Theme or principle

4 Arrangement
- a Parallel columns
- b Organized paragraphs
- c Organized outlines
- d Informal account
- e List

5 Time allotment
- a Duration of course
- b Time per week
- c Time per unit
- d Content per week
- e Content per month
- f Content per report period
- g Daily program

D *Materials*

1 Reading — Yes
- a Textbooks
- b Book lists for pupils
- c Magazines for pupils
- d Free or inexpensive materials
- e Professional literature for teachers
  - (1) Lists of teaching supplies
  - (2) Suggestions for adapting course
  - (3) Suggestions for diagnosis and remedial work
  - (4) Suggestions for classroom arrangement
- f Materials to provide background for teachers

2 Other materials
- a Commercial
  - (1) Drill cards
  - (2) Work books
  - (3) Visual aids
  - (4) Maps
  - (5) Radio
  - (6) Phonograph records
- b Local
  - (1) Informal drill materials
  - (2) Constructive materials
- c Community
  - (1) Educational institutions — museums art galleries, etc
  - (2) Experiences of school-patrons
  - (3) Industrial plants
  - (4) Community services

E *Activities*

1 Nature
- a Related to objectives
- b Provide for individual differences
- c Involve creative effort
- d Involve intellectual effort
- e Represent variety in type
- f Provide for out-of school contacts
- g Involve drill and memorization

CHECK LIST FOR ANALYSIS OF COURSES OF STUDY—*(Continued)*

Yes

h Involve doing and experiencing
i Relate to life experiences

F *Method*

1 Description
  a Type lessons
  b Suggested units
  c Suggestions for correlating instruction with community life
  d Provisions for diagnosis of individual difficulties
  e Provision for correcting individual difficulties
  f Principles in guiding study

G *Flexibility*

1 Provision for adapting course to
  a Communities or schools, as rural etc
  b Classes or groups
  c Individual pupils
2 Provisions made by varying
  a Content of course
  b Time requirements
  c Method or procedure

H *Measurement* Yes

1 Definition of standards of attainment
  a In terms of course-objectives
  b In terms of standard norms
2 Evaluation of pupil progress
  a Testing considered a part of each unit
  b Periodic testing schedules
  c Local tests supplied
  d Standard tests suggested
  e Sample tests included
  f Directions given for making tests
3 Records of pupil progress
  a On periodic reports
  b On cumulative records
4 Use of evaluation
  a In pupil placement and promotion
  b In guidance programs

I *Principal Topics of Course*

SECTION 4

THE EVALUATION OF THE EXTRACURRICULAR PROGRAM

Educational activities supplementary to the 'regular' course or curriculum have appeared since earliest times They became prominent in the United States during the period of the academy and have increased steadily in number and value The formal school and its administrators first ignored and then opposed the so-called extracurricular activities The modern school with its greater understanding of the nature of the learner of the learning activities, and of the integration of experience recognized that the so-called "extracurricular activities were in fact excellent experiences The extra activities have been moving over steadily into the curriculum The extra activities are in fact based upon a principle basic to modern education, pupil participation in selecting, planning, and carrying on learning activities Educational values have always suffered when an extracurricular activity became so important financially or politically that adults took it away from the learners, for instance interscholastic athletics

Extended treatment is not possible here An extensive literature is available While examining programs of co-curricular activities we may ask

1 Is an extensive program of student participation in the government of the school indicated?
   a Student councils and policy forming committees
   b Participation in management of school functions registration, commencement, dances and other parties assembly programs special drives and campaigns
   c Participation in minor routines of traffic control, classroom management record keeping
2 Is a home-room program outlined with educational as well as administrative objectives?
3 Is there a wide variety of club activities indicated?
   a Literary and debating
   b Vocational and avocational (hobbies)
   c Dramatic musical artistic
4 Is there an adequate list of school publications?
   a Newspaper
   b Yearbook
   c Student Handbook
   d Literary magazine
   e Humorous magazine
5 Is there provision for activities giving training in the management of money?
   a School banks and thrift programs
   b Handling money for school activities
6 Is a varied program of school excursions and trips included?
7 Is there an extensive program of intramural sports and games with reasonable interscholastic contacts?

The following listing is not exhaustive but is helpful in initiating an analysis of co curricular activities

CO CURRICULAR ACTIVITIES City School

Directions Please check below all clubs in your school, add others not listed

I Music
Boys' Glee Club
Girls Glee Club
Mixed Chorus
Band
Orchestra
Harmonica Club
String Ensemble
Brass Ensemble
German Band
"Hill Billy" Group
Soloists Club
Rhythm Band
Folk Dancing
Tap Dancing

II Service
Student Council
Safety Patrols
Hall Captains
Lunchroom Committee
Milk Committee
School Bankers
Playground Supervisors
Jr Red Cross Council
Visual Aids Operators
Messengers
Hosts
Hostesses
Bulletin Board Committee

III ATHLETIC
- Football
- Basketball
- Baseball
- Volleyball
- Tennis
- Track
- Tumbling
- Stunts
- Boxing
- First Aid

IV LITERARY
- Dramatics
- Creative Writing
- Choral Speech
- School Paper
- Annual

V SCIENCE
- Nature
- Bird
- Star
- Animal
- Weather
- Electricity
- Chemistry
- Radio
- Camera
- Collections

VI HANDICRAFTS
- Art Crafts
- Poster
- Soap Carving
- Clay Modeling
- Wood Crafts
- Airplane
- Metal Crafts
- Puppetry
- Sewing
- Embroidery
- Cooking
- Scrapbook

VII SOCIAL RELATIONS
- Personality
- Social Contacts
- Etiquette
- Travel
- Stamp

VIII COMMUNITY
- Boy Scouts
- Cub Scouts
- Girl Scouts
- Brownies
- Girl Reserves
- Campfire Girls
- Four H
- Blue Birds

IX OTHERS

DISCUSSION QUESTIONS FOR GENERAL INTRODUCTION

1 How do you suppose school work came to be organized in the form of subjects?

2 How were the particular subjects now in use selected?

3 How do you suppose the content for the various subjects was selected in the first place?

The foregoing three questions deserve special comment. Student thinking will be greatly aided through avoidance of an odd error which constantly appears here. Do not answer by saying that subjects were selected or organized as they are because of tradition. This common answer would be genuinely comic if it did not reveal (1) serious ignorance of simple historical facts and (2) serious superficiality of thinking. To be selected because of 'tradition' the subjects must have originated and established themselves before they became 'traditional'! The questions ask students to tell or to infer how the subjects arose in the first place.

4 How did Latin and cooking come to be offered in the same school?

5 What other organizations for materials have you encountered besides subjects? Upon what are they based?

6 Why are some subjects required, others elective?

* * *

1 Why do we not give everywhere courses in child rearing, care of children's diseases, city management, beautifying the home, and so forth?

2 The public pays for educating some individuals in some trades and professions. Why not others? Should the public pay for all types of training or not, plumbers, surgeons, carpenters, lawyers, teachers, engineers, telephone operators? This is a fundamental and far reaching question.

3 If Spencer were to analyze secondary education found in typical medium sized towns in the United States today, could he make the same criticisms he made in England nearly a century ago? Wholly, partially, not at all. Be specific.

4. What is the explanation and the significance of the similarity between Spencer's list of aims and the list prepared by the Commission on the Reorganization of Secondary Education? Of the differences?

5 Of all types of curricular material, which has received the most attention in the past? Which should receive increasing attention?

6 What part does formal discipline play in selection of subject-matter? Actually? Supposedly?

Individual and Group Reports

1 Report for class analysis the methods used in studying courses and curriculum in operation in your own school system Note within this report placement in terms of the levels on pp 864-865

2 Report any extensive investigation of a given curriculum in operation carried in current periodicals in city or state bulletins Individuals or small committees may bring this to a whole group

3 *Written,* but may be reported first orally for class analysis Make a detailed analysis of a course of study, either from your own schools or from the library collection The course may be of any type traditional or modern subject or unified elementary or secondary

- *a* Critically evaluate the statement of aim, philosophy and viewpoint
- *b* Critically evaluate the statements of specific objectives on any and all levels
- *c* Critically evaluate the organization of the course (scope and sequence —often called selection and gradation of subject matter)
- *d* Judge whether the content actually is in line with the general aim and specific objectives stated or with some other implicit aim
- *e* Critically evaluate the outcomes listed in the course of study (Sometimes these are listed separately and in addition to the specific objectives sometimes assumed to be the specific objectives in the degree achieved)
- *f* Critically evaluate the suggested learning experiences
- *g* Critically evaluate the suggestions given concerning general teaching methods, or organization for teaching devices methods of testing or evaluating diagnosing and so forth (Students may use any set of criteria which appeals and need not be confined to the set in this chapter)

4 Individual students or small committees may volunteer to make organized, general comparisons between modern courses and good ones published between 1890 and 1910

5 Course-of-study units may be evaluated here if the group desires but can also be done to advantage in connection with Chapter XI, 'Improving the Interests, Attitudes, and Work Habits of the Pupil

A Special Exercise

The selection of content and learning experiences within any subject field or area of experience will present problems of special interest The selection of materials and experiences useful in developing social insight are, however, the concern of educational leaders generally All curriculum workers and teachers should *therefore make brief answer to the following questions* •

1 What problems and materials will most illuminate the present social situation for the student?

• H G Hullfish Educational Confusion *Educational Research Bulletin,* March 2 1932 (Ohio State University) pp 118 119,

2 What points of contrast between the present and the past will bring the student to a realizing sense of the perennial character of social problems?
3 What knowledge will throw into relief the bases of present and past social standards?
4 What social situations will bring to light the incongruity of man's behavior as he carries over standards from the past and crowds them in with those of the present?
5 In what ways has intelligence operated in this field to develop new instrumentalities and institutions?
6 What new responsibilities have these instrumentalities and institutions brought to the individual?
7 What materials will best show the play of human intelligence in the creation of new standards?
8 What interests of the student will illustrate these same conflicts of standards and place on him the burden of critically establishing a unified outlook?
9 What class procedures will lead the student to a reconstruction of his present view as he thus sees knowledge at work leading man both to deepened insight and to social maladjustment?

Suggested Readings

Bobbitt Franklin *The Curriculum* (Boston Houghton Mifflin Company 1918)

Almost the first of the modern books Interesting philosophic treatment Valuable despite date

——— *The Curriculum of Modern Education* (New York McGraw Hill Book Company Inc 1941)

A recent expression of Bobbitt's point of view

Bruner Herbert B and others *What Our Schools Are Teaching* (New York, Bureau of Publications Teachers College Columbia University 1941)

A critical analysis of selected courses of study in science social studies and industrial arts Uses criteria set up by Bruner in his article Criteria for Evaluating Course of Study Materials *Teachers College Record* Vol 39 (November 1937) pp 107 120

Caswell H L and Campbell D S *Curriculum Development* (New York American Book Co 1935)

A basic general book Criteria scattered through volume Watch periodical literature for articles by H L Caswell developing his views further

DeBoer John J and others *The Subject Fields in General Education* (New York D Appleton-Century Company Inc 1941)

An excellent analysis of the general subjects in the light of modern concepts of learning

Department of Supervisors and Directors of Instruction jointly with the Society for Curriculum Study *Tenth Yearbook, The Changing Curriculum* (New York D Appleton Century Company, Inc 1937)

Much good concrete material and in main valuable though with a few superficial chapters

Department of Supervision and Curriculum Development, *1944 Yearbook, Toward a New Curriculum* (Washington, D C, National Education Association, 1944)

Series of illustrative new departure

DRAPER, E M, *Principles and Techniques of Curriculum Making* (New York, D Appleton-Century Company Inc, 1936)

Extensive lists of criteria Numerous illustrations Not as critical nor as organized as some other references but a very valuable collection of illustrative materials

GWYNN J M *Curriculum Principles and Social Trends* (New York, The Macmillan Company, 1943)

A discursive widely ranging compendium Extremely valuable historical materials Certain current trends well developed others not Well written good illustrations

HARRIS P E *The Curriculum and Cultural Change* (New York D Appleton Century Company Inc 1937)

A scholarly discussion of philosophic background For too difficult for average students but of great value to advanced groups

HOPKINS L T *Integration* (New York D Appleton Century Company Inc 1937)

A series of presentations by committee members An excellent general source on integration

- - — *Interaction* (Boston D C Heath and Company 1941)

Covers teaching as well as curriculum development Excellent on extreme type of modern curriculum development

LAWSON Douglas *Curriculum Development in City School Systems* (Chicago University of Chicago Press 1940)

An excellent critical analysis of factors affecting courses and curriculums in ten large cities Valuable collection of factual materials

MIEL Alice *Changing the Curriculum A Social Process* (New York D Appleton Century Company Inc 1946)

A better reference for Chapter XIII on improving curriculums but excellent as general reading here

MILLER Perry Van *The Assimilation of New Instructional Material into the Public High School An Administrative Study* unpublished doctoral dissertation Harvard Graduate School of Education

MORRISON, Henry C *The Curriculum of the Modern School* (Chicago University of Chicago Press 1941)

A thoroughgoing scholarly discussion representing a conservative view

National Society for the Study of Education *Twenty Sixth Yearbook The Foundations and Techniques of Curriculum Making* (Bloomington Ill Public School Publishing Co 1926)

Excellent extensive discussion of methods and achievements to 1926 Valuable not only as historical reference but also for discussion of trends and methods of procedure

NORTON, J K and NORTON M A, *Foundations of Curriculum Making* (Boston Ginn and Company, 1936)

Most valuable for summary of research studies on subject fields and difficulties therein Each chapter has an excellent selective bibliography to date

PEDDIWELL J Abner (Harold Benjamin), *The Saber Tooth Curriculum* (New York, McGraw-Hill Book Company Inc 1939)

Clever satire on absurdity of retaining outworn materials in course or curriculum Particularly pages 28 41 Vivid writing entertaining reading

RUGG, Harold O., *American Life and the School Curriculum* (Boston Ginn and Company, 1936)

Excellent treatment of background and principles

———, and SHUMAKER, Ann, *The Child Centered School* (Yonkers on Hudson, N Y, World Book Company, 1928)

An older volume still among the most valuable for treatment of modern theory of learning with effects on courses and curriculums

SAYLOR, J Galen, *Factors Associated with Participation in Cooperative Programs of Curriculum Development* (New York Bureau of Publications Teachers College, Columbia University 1941)

One of the best available summaries

General Sources of Original Materials Appearing Currently

The *periodical literature* constantly contains accounts of new courses of critical evaluation These should be reported by individuals or small committees

The journal *Educational Leadership* with which the *Curriculum Journal* was merged is the chief periodical source in this field

The *bulletins* of city county and state departments of education while usually dealing with programs of curriculum development in progress do often contain analytic materials also

References on the Co Curricular Program

McKOWN Harry C *Activities in the Elementary School* (New York McGraw Hill Book Company Inc 1938)

——— *Extra Curricular Activities* (Revised edition New York The Macmillan Company 1947)

OTTO, Henry J and HAMRIN, S A, *Co Curricular Activities in the Elementary Schools* (New York D Appleton Century Company Inc 1937)

TERRY Paul W, *Supervising Extra-Curricular Activities* (New York McGraw-Hill Book Company, Inc 1930)

See also texts on guidance principles of secondary education and secondary school administration as well as voluminous periodical literature

X

The Study of Materials of Instruction and the Socio-Physical Environment

The growth and development of the pupil in the modern school are affected not only by the nature of the curriculum and the quality of instruction but also by the environment that the school and community provide The modern pupil is literally surrounded by a profusion of aids to his learning, such as concrete materials of all kinds, books, visual aids, audio aids, exhibits and hundreds of others The learning takes place in an environment that is more or less comfortable and stimulating The facilities and equipment provided determine the richness and variety of his experiences At the same time he encounters personalities that affect his own personality in many different ways Added to these factors that affect his growth it should be remembered that he is exposed to a wide variety of influences in life outside the school that in many cases are wholesome and constructive but that too often are known to be destructive and damaging The school is faced with the problem of determining the extent to which these many elements of the learning situation may be leading to unfavorable child development Often the study of these conditions can be most effectively conducted if there is a cooperative attack on the problem by all agencies in the community that are concerned with the raising of the level of living for all members of the group Success has attended such efforts in many places

It is an unfortunate fact that such wide variations exist in the level of educational facilities among the schools of this country These differences are due in part to differences in the wealth of the communities, differences in their willingness to support well-rounded educational programs, and unfortunately often to ineffective educational leadership which does not have a clear vision of what is desirable In many localities where there are severe financial limitations we find excellent programs conducted by a staff that by exercising ingenuity is able to make the most of what is available The problem of equalizing educational opportunity is being given careful consideration in this country The seriousness of the situation is revealed by the fact that the range in current per pupil

cost for the school year, 1941-1942 by states ranged from $32 98 to $171 89 [1]

The influence of conditions in the socio physical environment on child development is clearly revealed by Ludden in a recent study of delinquents in a large city in New York In this investigation data were assembled for two groups of pupils in grades 7 to 9, one of them consisting of pupils who had come into direct contact with the court, the other of pupils who had not had such contact An analysis of the data showed significant differences between the groups on the following list of items -

Factor		*Critical ratio*
1	Living in a delinquency area	9 10
2	Chronological overageness—any amount	8 88
3	Living in a low rent area—average under $20 a month	8 40
4	Living in a broken home	7 50
5	Different homes lived in, if more than one	6 76
6	Poor school attendance—over five absences	6 43
7	Terms repeated in school—over one	6 40
8	School failures—more than one subject	6 19
9	Terms with failing marks—two or more	5 61
10	Intelligence below 90 on Otis test	4 to 6
11	Low employment status of father	4 72
12	Times tardy at school—any number	4 65
13	Illegal absences from school—over five	4 32
14	Intermediate position in sibling group	2 10

It can be seen that in the list of items that often accompany delinquency there are six that are related to the home and eight that are related to the school environment Five of the six related to the home, namely, delinquency area low rent area broken home, mobility of the home, and low economic status of the father are closely associated with economic conditions They should be matters of concern to the entire community Poor school adjustment of delinquents is indicated by most of the factors related to the school Correction of the conditions over which the school has direct control would undoubtedly do much to eliminate the factors that contribute directly to delinquency Close cooperation between the school and community agencies is necessary if social and economic conditions in the community are to be improved They are the result of trends in modern life that are matters of profound concern to all who are seeking to make living for all people richer and more wholesome Then correction may require many far-reaching social, economic and political reforms

[1] D T Blose and H F Alves *Statistics of School Systems, 1939 1940 and 1941 1942* (Washington D C Federal Security Agency 1944) Vol 2, Ch 3

[2] Wallace Ludden Anticipating Cases of Juvenile Delinquency *School and Society* Vol 59 (February 12 1944), pp 123 126

See also W C Kvaraceus *Juvenile Delinquency and the School* (Yonkers on Hudson, N Y World Book Company 1945)

SECTION 1

METHODS OF STUDYING MATERIALS OF INSTRUCTION

Kinds of instructional aids To carry on the activities of the modern school a great variety of instructional aids are necessary The use of some of them requires special apparatus The value of community resources as a means of vitalizing instruction and making it meaningful is generally recognized As a basis of preliminary analysis the following list of kinds of instructional aids is presented

I General Instructional Supplies
- A Printed or written materials
  - 1 Books periodicals bulletins pamphlets
  - 2 Charts diagrams graphs tables
  - 3 Cartoons clippings
  - 4 Maps and globes (relief product and industry population rainfall etc)
  - 5 Posters
  - 6 Practice exercises workbooks tests
- B Visual aids
  - 1 Pictures (photographs of persons places processes reproductions of works of art)
  - 2 Motion pictures with and without sound
  - 3 Lantern slides still films
  - 4 Stereographs
- C Audio aids
  - 1 Radio presentations and transcriptions
  - 2 Phonograph records
  - 3 Plays and dramatizations
- D Concrete materials
  - 1 Exhibits (specimens of plant and floor models of machinery or places industrial and natural products business forms)
  - 2 Museum collections
  - 3 Measuring instruments
  - 4 Gardens animals toys
  - 5 Laboratory apparatus

II Apparatus required
- A Motion picture projectors and screens sound projectors viewers
- B Phonographs and radio sets
- C Blackboards and bulletin boards
- D Sand tables aquaria green house
- E Construction materials tools work benches
- F Health education apparatus equipment supplies games
- G Musical instruments science equipment
- H Museum rooms and exhibit cases

III Contacts with Community Resources
- A Trips, excursions tours journeys
- B Direct participation in community affairs—social economic, political industrial
- C Community surveys, clean up campaigns etc
- D Church, theater, recreation welfare agencies, press industry government

Determining the adequacy of provisions for instructional aids That some of these aids are not adequately supplied in many school systems was clearly revealed by a survey of the kinds of aids provided for teachers in 110 cities with populations of over 30,000 The results of this survey are given in the table below

AIDS AND DEVICES MOST FREQUENTLY PROVIDED TO TEACHERS BY THE SCHOOL SYSTEM AGENCIES *

Aids and Devices	*44 Cities over 100,000 in population with agencies* **		*35 Cities 50,000 100 000 in population with agencies*		*31 Cities 30 000 50 000 in population with agencies*		*Total group 110 Cities with agencies* †	
	Number	*Per Cent*	*Number*	*Per Cent*	*Number*	*Per Cent*	*Number*	*Per Cent*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Books	26	59	30	86	27	87	83	75
Charts	27	61	14	40	19	61	60	55
Exhibits	24	55	16	46	15	48	55	50
Globes	18	41	19	54	14	45	51	46
Lantern slides	39	89	32	91	27	87	98	89
Maps	18	41	21	60	21	68	60	55
Museum collections	21	48	8	23	7	23	36	33
Pictures	29	66	31	89	27	87	87	79
Phonograph records	15	34	21	60	18	58	54	49
Posters	17	39	14	40	19	61	50	45
Silent movies	37	84	23	66	18	58	78	71
Sound movies	3	7	1	11	2	6	9	8
Radio	7	16	12	34	14	45	33	30
Still films	6	14	3	9	–	6	11	10
Stereographs	5	11	3	9			8	7
Miscellaneous	6	14	1	3	4	14	11	10

Read table Of the forty four superintendents of cities over one hundred thousand population who answered the questions thirty nine or 89 per cent reported lantern slides as the device or aid to teaching most frequently supplied to teachers by school system agencies Per cents are figured on the basis of the number of superintendents answering the specific question

* *Aids to Elementary School Training Thirteenth Yearbook* of the Department of Elementary School Principals (Washington D C National Education Association 1934) p 163

** The number of cities in each size group answering the question

† While 114 cities reported agencies which supplied devices only 110 indicated the kinds of aids most frequently distributed

The report of the survey comments as follows on the findings and their implications for supervision [3]

1 Maps globes phonograph records pictures charts, slides posters and exhibits were (in this order) the devices used most regularly by schools of all sizes Large schools enrolling over one thousand pupils reported more frequently the use of motion pictures sound films and other equipment requiring costly projection devices Would it be possible

[3] *Aids to Elementary School Teaching, Thirteenth Yearbook* of the Department of Elementary School Principals (Washington, D C, National Education Association, 1934) pp 158 159

through a centralization of equipment to provide small schools with a greater variety of aids?

2 About 50 per cent of the principals reported a special interest in slides and still films Not more than one third of the principals reported a special interest in any other kind of device Interest in 'sound movies' was reported by less then 2 per cent Apparently a large proportion of principals have no special interests in the field of devices in teaching Does this imply a lack of interest in the specific and detailed aspects of instruction?

3 School systems supply regularly such common devices as globes and maps Less than 50 per cent of the systems provide such devices as slides phonograph records pictures and silent movies Does this indicate a tendency for the purchasing of supplies to fall into fixed grooves and ruts?

4 About 47 per cent of the principals reported that pictures were obtained from the teacher, the P T A and sources other than the local school system Other devices (posters phonograph records exhibits charts and aquaria) were supplied by the outside agencies in about one case in four This fact seems to link up with the implication of the previous paragraph—that the administration falls into ruts when it comes to supplying schools with teaching aids and that non-official sources must be used to break down traditional practices

5 Pupils obtain or make posters as aids to teaching according to 51 per cent of the principals Also in more than one third of the schools the pupils make or obtain exhibits charts and pictures Types of devices which might be obtained or made by pupils in greater numbers than reported include slides maps school museums and aquaria

6 The public library the local museum and the school department are the chief sources of devices for most schools Pictures charts, and slides (in this order) are the devices most frequently borrowed by schools Relatively few devices were reported as borrowed from business or industry

7 About 60 per cent of the principals depend upon professional bulletins and leaflets to keep them informed as to developments in the field of aids to teaching About one third of the principals expect the teacher to help himself—in many instances probably with the principals guidance About 4 per cent of the principals made no special effort to keep their schools abreast of the new developments Does this link up with the fact that a number of principals had no special interest in devices?

8 A majority of principals reported that their course of study give some attention to the aids to teaching which should accompany the content Seven per cent of the courses were reported as not really dealing with devices Is there a hiatus here which might be taken up if more principals developed a special interest in devices?

The results of this survey for relatively large cities reveal a situation that is not at all satisfactory Special attention should be called to the few places that now supply radio equipment and motion-picture films, both of which are recognized as being highly potent educational instrumentalities It is obvious that conditions in places smaller than those included in this study are undoubtedly even less satisfactory with respect to all of the items listed in the preceding table It is known that in most of the small rural schools of this country the instructional equipment is wholly inadequate for carrying on a well-rounded educational program

Expenditures for textbooks and library books The amount of money spent for textbooks and library books varies widely from place to place In a recent study of practices in New York the range in amounts spent and books available given in the table below was revealed The data are for a selected group of secondary schools typical of the state as a whole

VARIATIONS IN PROVISIONS OF BOOKS IN SELECTED NEW YORK SCHOOLS*

Level	*Amount Spent for Textbooks per Pupil*	*Average Number of Books per Pupil in Library*	*Books Added that Year per Pupil*
Highest	$1 43	22—	0 9
Median	0 58	1—	0 2
Lowest	0	2—	0

* Data are adapted from a table in Dora V Smith *Evaluating Instruction in Secondary School English* English Monograph No 11 of the National Council of Teachers of English (Chicago Ill 1941) p 130

The variations shown in the table are very striking The highest amount spent per pupil was $1 43, the lowest amount spent was nothing at all The range in number of books available ranged from 22 books per pupil to 2 books a ratio of 11 to 1 The number of books added to the library varied from 0 9 books to 0 books An additional check showed that the percentage of books recommended by *The Standard Catalog for High School Libraries* actually available that year varied from 54 per cent in a suburban school to only 9 per cent in a small central rural school The problem of purchasing books is complicated for the larger schools by the numbers of pupils involved Provision for an adequate range of books for limited numbers of pupils taxes the resources of smaller communities

Locating needs of instructional materials There are many ways in which the supervisor can locate needs of instructional materials The analysis of the requirements of the course of study will indicate some of the kinds of materials needed for effective instruction The results of tests will show the fields in which there are weaknesses that may be due to lack of the proper kind of instructional equipment In many schools teachers make out formal written requests for materials they need to carry on units of work An analysis of these requests is a very helpful means of locating needs The study of inventories will reveal limitations of supplies Library records will indicate the kind and extent of free reading done by the pupils Any deficiency here may be due to the fact that there is an inadequate supply of interesting books and other reading materials An analysis of books, magazines, and periodicals supplied to children by private and rental libraries may prove to be very revealing

A survey by the supervisor of the extent to which the teachers have drawn upon the resources of the community to vitalize their teaching

through excursions, visits, and first-hand contacts may show the need of bringing these possibilities to the attention of the teachers

NUMBER OF TIMES EACH TYPE OF INSTRUCTIONAL MATERIALS WAS OBSERVED IN 505 ARITHMETIC LESSONS *

	Instructional Material	Grade 1 No	Grade 5 No	Grade 6 No	*III*	% of *III*
A	Books					
	1 No books used	38	62	71	181	36
	2 Basic text in hands of the pupils	71	86	100	257	51
	3 Supplementary textbooks	18	13	11	42	8
	4 Reference books encyclopedias etc	0	0	4	4	1
	5 Pamphlets bulletins magazines etc	1	4	10	15	3
	6 Selections found in readers geographs texts history texts etc	0	1	9	13	2
	7 Others such as ————	7	13	9	30	6
B	Practice Exercises					
	1 Exercises in textbook	54	70	75	198	39
	2 Standardized drill cards adapted for individualized progress	16	13	14	43	8
	3 Unstandardized materials on cards prepared by teacher	20	28	11	59	12
	4 Mimeographed materials	20	38	26	84	17
	5 Workbooks	22	15	22	59	12
	6 Materials on blackboard to be copied by pupils	51	71	68	190	37
	7 Dictated materials to be copied by pupils	17	32	28	77	15
	8 Problems or examples given orally to be solved mentally	26	44	34	104	21
	9 Flash cards	18	11	12	41	8
	10 Others such as — —	6	9	8	23	5
C	Other Equipment					
	1 Blackboard used by teacher	107	138	147	382	76
	2 Blackboard used by pupils	96	131	133	360	72
	3 Slides films etc	0	0	1	1	1
	4 Class progress graph (in use or on wall)	29	27	40	96	19
	5 Individual progress graph	26	31	17	104	21
	6 Charts diagrams pictures etc not in textbook	22	20	24	66	13
	7 Objects such as cubes measures sticks rulers instruments etc	16	15	22	53	11
	8 Illustrative materials collected from the community	1	1	10	18	4
	9 Bulletin board display of current applications of number	2	6	7	15	3
	10 Prepared exhibits of material supplied by commercial houses	0	0	2	2	1
	11 Neatness scales to set standards	6	3	1	11	2
	12 Others such as ————	3	5	7	15	3
Number of classes		153	170	182	505	

* *The Teaching of Arithmetic. Tenth Yearbook* of the National Council of Teachers of Mathematics (New York Bureau of Publications Teachers College Columbia University 1935) p 46

The most direct method of locating needs is through the observation of the work in the schools and through interviews with principals and teachers One procedure that has been very helpful is the use of check-lists to record the kinds of materials observed in use during lessons Such a plan is more significant than securing from teachers lists of supplies on hand, since the fact that they are on hand does not assure either that they are being used or that they are being used effectively

The results of one application of this procedure are shown by the data in the table on page 449 They are based on reports of observations of lessons by principals of the kinds of materials used by a selected group of teachers from all parts of the country during typical arithmetic lessons The table shows the wide variety of materials that can be used by teachers of arithmetic It also shows the relatively small number of teachers who were using such means of vitalizing instruction as supplementary pamphlets, progress graphs, objects bulletin boards exhibits and illustrative materials collected from the community The textbook mimeographed materials and exercises copied from the blackboard constituted the major sources of the work of the class Similar data based on reports of observation in one school or in one school system would furnish the supervisor with ample information as to the use of various kinds of material in arithmetic classes Since the supervisor cannot conveniently visit all classes he should secure the help of principals in gathering the desired information

Evaluating uses of materials The availability of good materials does not insure their effective use An excellent plan for evaluating the use of textbooks by teachers is based on an analysis of their uses in representative schools in New York state which appeared in the bulletin, Informal Teaching Series, Circular 4, 'The Use of Textbooks Three levels of use are described the formal less formal and the informal The descriptions that are given suggest steps that may lead toward better practice The plan is presented in the chart on pages 451 452

Studying the quality of instructional equipment Whenever studies of equipment have been made, wide variations in the amount and quality of supplies have been found The differences from place to place are due to such factors as lack of funds, a narrow view of the possibilities and requirements of a subject, the limited viewpoint of the supervisory and teaching staff and the indifference or lack of initiative of the teaching staff The problem is further complicated if the pupils are required to purchase their own textbooks and other supplies, since this almost always results in a severe limitation of materials

On the basis of study in a number of school systems Zirbes [4] conceived the notion of preparing descriptions of levels which can be used to rate

[4] Laura Zirbes, *Comparative Studies of Current Practices in Reading with Techniques for the Improvement of Teaching* Contributions to Education No 316 (New York Bureau of Publications Teachers College Columbia University, 1928)

the quality and kinds of materials being used by classes in reading in various grades The scale on page 453 is an adaptation of her descriptions of levels, for one group of grades It contains a series of four levels and a definition of the characteristics of an instructional program at each level The value of this device lies largely in the fact that it has been found very helpful in stimulating the study of local supplies and the purchase and use of a much wider variety of books and other materials

Baldwin [5] has devised another form of rating to evaluate and determine the adequacy of equipment in the social studies He first made a careful study of the kinds of materials used in many school systems in social studies classrooms He then checked the equipment against the generally accepted objectives of the subject He also had the materials rated as to their value On the basis of his analysis he then drew up lists of the kinds of equipment that are necessary for efficient teaching of the social studies, with assigned ranks as to their importance By checking the equipment available in any school against the Baldwin list, it is relatively simple to determine the deficiencies A portion of his check list of reference books and periodicals for junior high schools is given on pages 454-455

PLAN FOR EVALUATING USE OF TEXTBOOKS *

Formal	*Less Formal*	*Informal*
1 *Who determines the choice of textbooks?*		
Teachers and supervisory officers immediately responsible have little or no choice in the selection	Chosen by principal and supervisors	Chosen cooperatively by securing judgment of every one concerned including teachers
2 *What is the administrative provision for the use of textbooks?*		
Kept as a set for the exclusive use of one class	Texts lent to class for the period of time needed	Exchanged freely among various classes
3 *How are textbooks used in making assignments?*		
Curriculum determined by textbooks	More than one textbook used Teacher supplies other materials	Texts and other books used as references Pupils seek and use other materials

* Published by the State Education Department Albany N Y

[5] J W Baldwin *Social Studies Laboratory*, Contributions to Education No 371 (New York Bureau of Publications Teachers College Columbia University 1929)

PLAN FOR EVALUATING USE OF TEXTBOOKS (*Continued*)

Formal	*Less Formal*	*Informal*
4 *What provision is made for differences in pupil ability to use texts?*		
All pupils in same class use same set of books simultaneously	Teachers choose different books which pupils may use	Various books of different degrees of difficulty used at same time depending upon ability and interests of pupils
5 *How do teachers use textbooks in oral work?*		
In classes such as oral reading or social studies pupils are required to follow silently in their own books	One group takes turns reading pages of story to other group	Class becomes audience for new story which one pupil has chosen and prepared in advance
6 *What is done if the book is too difficult for some pupils?*		
Teacher reads difficult portions to pupils who cannot understand text	Pupils having difficulty are required to reread with special emphasis upon vocabulary	If texts are too difficult easier books which pupil can understand and enjoy are made available
7 *What provision is made for individual differences?*		
Entire class is assigned same number of pages	Amount of work varied for different sections of class	A common theme or topic is followed but materials and references are varied according to individual abilities and interests
8 *To what extent are pupils required to master the contents of books?*		
Pupils must know what author says and agree with ideas of teacher	Pupils allowed to question authors or teachers statements	Pupils are taught to reserve judgment seek evidence and exchange ideas before forming opinions
9 *What is the goal to be attained in the use of textbooks?*		
Mastery of subject-matter is the goal	Mastery of the tools of learning is the goal	Desirable attitudes, appreciations, abilities, habits and skills are the goals

Formal	*Less Formal*	*Informal*
10 *How are pupils tested after the completion of their work?*		
Class is given written examination on content of text and is required to attain a fixed standard	Pupils may not be examined but teachers mark on daily recitations	Success is measured by the satisfactory completion of tasks chosen or assigned on the basis of the individual pupil's age, progress, and ability to achieve

SCALE ON READING MATERIALS

Fourth Fifth and Sixth Grades

Level One	*Level Two*
Textbooks on other subjects Basal readers (one only) Supplementary readers	Textbooks on other subjects Basal readers (more than one) Supplementary readers
Traditional practices Books in sets	Typical intensive program usually narrow with greater emphasis on oral than on silent reading Considered good in 1910 Most books in sets
Average amount read 4th grade 50-100 thousand words 5th grade 100-200 thousand words 6th grade 150-250 thousand words	Average amount read 4th grade 150-275 thousand words 5th grade 300-450 thousand words 6th grade, 350-600 thousand words
Level Three	*Level Four*
Incidental reading test Books in other subjects Literary reader Study reader Other readers References Readings Poems	Literal use of reading in all activities Textbooks in other subjects Literary readers Study readers Informational books Magazines Poetry Books on special topics Books for wide reading
Characteristic minimal requirements in progressive situations and in good courses of study	Progressive recommendations for intermediate grades Unnamed books are selected on the basis of classroom activities and individual interests
One or two sets—several books in groups	Fewer readers, only one or two sets Several groups of books of various sorts and levels of difficulty

SCALE ON READING MATERIALS (*Continued*)

Level Three	*Level Four*
Many individual copies	Many single copies in well balanced variety for recreation and enrichment Reference books Magazines Access to libraries
Average amount read 4th grade, 300 thousand words or more 5th grade, 700 thousand words or more 6th grade, 800 thousand words or more	

A SECTION OF BALDWIN'S CHECK LIST

BOOKS, PERIODICALS ETC

Almanac World, preferred (1 for department)
Encyclopedias
  Children's general (1 for department)
  Historical (1 for department)
Newspaper, local daily (1 for department)
Periodicals
  Current Events (1 for each pupil)
  National Geographic Magazine (1 for department)
Yearbooks *Statesman's* and *American* (1 for each department)
Collateral readings
  Biography (many for department)
  Geographical readers (10 copies each of 3 or 4 series for the department)
  Government and state bulletins (many for department)
  Historical documents (many for department)
  Historical fiction (many for department)
  Historical plays (several for department)
  Sourcebooks (few for department)
Supplementary texts (2 per pupil per subject)

MAPS CHARTS, ATLASES

Globes, political (1 for each room)
Maps historical (1 set of 6 for department) (American series)
Political physical wall maps
  Africa (1 for department)
  Asia (1 for department)
  City (1 for department)
  Europe (1 for each room)
  Hemisphere (1 for department)
  North America (1 for each room)
  South America (1 for department)
  State (1 for department)
  United States (1 for each room)
  World (1 for each room)

Slated outline maps
  Europe (1 or 2 for department)
  North America (1 for department)
  South America (1 for department)
  United States (1 for each room)
  World (1 for department)
Miscellaneous maps
  Population (many small ones for each room)
  Rainfall (many small ones for each room)
  Relief maps (made by pupils)
  Atlas historical (1 for department)
  Atlas, geographical (1 for department)
  Desk outline maps (many for each room)

PICTURES AND VISUAL AIDS (MISCELLANEOUS)

Collections topical (many for each room)
Illustrated booklets (few for department)
Large mounted pictures (few for each room)
Motion picture films (few for department)
Photographs (collection for department)
Slides (many for all rooms)
Steamship and railway folders (many for each room)
Wall pictures (few well chosen each room)

Many cities have standard equipment specifications which may be used to check the adequacy of equipment.[6]

The rating of textbooks Many kinds of score cards for rating textbooks and other supplies have been devised. They usually consist of a series of items which are considered in making the appraisal. The score cards range from brief lists of very general items to elaborate scales. Sometimes these items are given weights. The rating a book receives is based on a composite of these weighted results.

Whipple made a study of the items considered in selecting textbooks found on score cards. Because of the highly suggestive nature of her findings the list of items is reproduced in the table on pages 456-458.

Whipple comments on these data as follows:[7]

1. There is practically unanimous agreement concerning the importance of 'Content' 'Physical Make Up' and Aids to Instruction (Items 1, 2, and 3) as is shown by the high frequencies for each of these items.
2. There is wide disagreement concerning the importance of many standards. A large majority of the items listed are mentioned on only a few score cards and receive small percentages of mention.
3. Few of the qualities reported are described in objective terms. In fact, only 13 per cent of the total number of items listed on the score cards may be considered objective.

[6] The most comprehensive discussion of standards for rating equipment available is given in *Materials of Instruction, Eighth Yearbook* of the Department of Supervisors and Directors of Instruction (Washington, D. C., National Education Association, 1935).

[7] Gertrude Whipple, Procedures Used in Selecting Textbooks, *Elementary School Journal*, Vol. 36 (June 1936), p. 760.

ITEMS CONSIDERED IN SELECTED TEXTBOOKS WHEN SCORE CARDS ARE USED *

Item	Percentage of Score Cards Mentioning Item	Percentage of Total Frequency of Mention
1 Content		
a Ease of comprehension	100 0	14 5
b Value	100 0	13 1
c Scope	70 8	4 4
d Abundance of material	16 7	6
e Unspecified	8 3	0 5
Total	100 0	38 1
2 Physical Make-Up		
a Type	91 7	5 7
b Binding	83 3	5 0
c Paper	70 8	3 9
d Arrangement of page	41 7	1 6
e Lines	41 3	1 6
f Illustrative material	33 3	1 3
g Spacing of words and letters	25 0	1 0
h Size of book	25 0	1 0
i Width of margins	20 8	8
j General appearance	20 8	8
k Shape	12 5	5
l Size and clearness of marginal notes and index	4 2	2
m Weight of book	4 2	2
n Unspecified	8 3	0 3
Total	100 0	25 9
3 Aids to Instruction		
a Study exercises	70 8	6 8
b Graphic material	58 3	3 9
c Index	58 3	2 3
d Table of contents	45 8	1 9
e Provision for efficient use by teacher	37 5	1 9
f References and bibliography	33 3	1 3
g Tests and norms	20 8	1 1
h Preface	25 0	1 0
i Pupil material accompanying book	20 8	1 0
j Glossary	20 8	8
k Appendix	20 8	8
l Pronunciation aids	16 7	6
m Introduction to pupil	8 3	3
n Remedial material	4 2	2
o Title page	4 2	2
p Drill material	4 2	0 2
Total	83 3	21 3

* Gertrude Whipple "Procedures Used in Selecting Textbooks" *Elementary School Journal* Vol 36 (June, 1936) pp 760 775

Item	Percentage of Score Cards Mentioning Item	Percentage of Total Frequency of Mention
4 Method		
a Development of reading habits and skills	25 0	1 4
b Correlation with other subject matter and activities	20 8	1 0
c Recognition of group and individual differences	16 7	6
d Variety of types of activities	16 7	6
e Provision for enrichment of vocabulary	12 5	5
f Flexibility of method	12 5	5
g Recognition of principles of psychology	8 9	9
h Opportunity for pupils to discover cause and effect	8 9	8
i Opportunity for pupils to develop general principles	8 9	8
j Attention to pupil interest	4 2	2
k Opportunity for applying general principles	4 2	2
l Topical emphasis	4 2	2
m Provision for supervised study	4 2	2
n Unspecified	12 5	0 5
Total	62 5	6 8
5 Objectives		
a Harmony with educational aims	16 7	0 8
b Desirable attitudes and economical habits and skills	8 9	5
c Strong motives for and permanent interests in reading	8 9	8
d Objectives of the course of study	4 2	5
e Rich and varied experience	4 2	2
f Correct standards and ideals in use of English	4 2	2
g Vision of man in relation to his environment	4 2	1
h Ideals of high grade human living	4 2	1
i Unspecified	4 2	0 2
Total	45 8	2 9
6 Organization		
a Organization around significant problems	12 5	0 5
b Psychological rather than logical organization	8 3	3
c Possibility of omissions without destroying sequence	8 3	8
d Organization within selections	8 3	8
e Placement of pedagogical material	4 2	2
f Distribution amount, and balance of drill	4 2	2
g Unspecified	16 7	1 0
Total	29 2	2 8
7 Author or Authors		
a Experience	20 8	0 8
b Reputation	16 7	6

ITEMS CONSIDERED IN SELECTED TEXTBOOKS WHEN SCORE CARDS ARE USED

Item	Percentage of Score Cards Mentioning Item	Percentage of Total Frequency of Mention
7 Author or Authors (*cont*)		
c Training	8 9	1
d Previous publications	4 2	2
e Scholarship	4 2	2
f Familiarity with scientific investigations	4 2	2
g Participation in scientific investigations	4 2	0 1
Total	25 0	2 4
8 Adaptation to Specific Needs	20 8	1 0
9 Series to Which Book Belongs		
a Plan	8 3	1
b Gradation in difficulty	4 2	0 1
Total	12 5	0 6
10 Scientific Basis for Method and Content	12 5	0 6
11 Type of Book	12 5	1
12 Recency of Copyright Date	8 3	1
13 General Merit	4 2	2
14 Special Features	4 2	2
15 Publisher	4 2	2
16 Price	4 2	0 2
Total		100 0
Total Frequency of Mention		616

The suggestion that few of the items for the score cards are of an objective character indicates Whipple's belief that it is desirable to include such items on score cards The reason is that subjective ratings based on impressions alone are of little value If objective data concerning characteristics of several books are available, direct meaningful comparisons can be made between them If the supervisor, for example, counts the number of problems in textbooks in arithmetic, the number of pictures they contain, the kinds of tests in them and similar items, a comparison of these definite quantitative data for the several books will be of great assistance in making reliable evaluation The items appearing in the California score card (which is given on page 460) for evaluating sixth grade textbooks in reading are all definite points about which it is possible to secure factual comparative data by making appropriate analyses of the contents of the books, largely by counting the various kinds of materials that are listed on the score card

Many rating scales have been devised for evaluating textbooks in

which objective analyses of items are included Some of the more helpful ones are listed below

GREGORY W M, "Scoring Plan for Elementary Geography Texts," *Education* Vol 55 (December 1934) pp 307 313

KOPEL D and O'CONNOR J F Criteria for Evaluating Reading Textbooks' *Journal of Experimental Education* Vol 12 (September, 1943-June 1944) pp 26 33

——, Procedures for Evaluating Textbooks in Reading" *Journal of Experimental Education* Vol 12 (September 1944 June 1944) pp 84 96

MEIRO I R and WATERMAN J R Evaluation of Textbook Materials in Handwriting *Elementary School Journal* Vol 46 (November 1935), pp 204 210

NEWBORN C The Selection of Basal Readers' *Elementary School Journal* Vol 32 (December 1941), pp 285 294

SMITH Dora V, chairman Evaluation of Composition Textbooks Report of National Council Committee *English Journal*, Vol 21 (April 1932), pp 280 294

WATERMAN J R The Evaluation of Arithmetic Textbooks, Bulletin No 19 (Sacramento Calif, State Department of Education 1932)

—— and MEIRO I R 'Evaluation of Spelling Textbooks, *Elementary School Journal*, Vol 46 (September 1935) pp 11 52

Numerous issues related to the selection and evaluation of textbooks are discussed in *The Textbook in Education*, Part II of the *Thirtieth Yearbook* of the National Society for the Study of Education [8] It contains a wealth of valuable information for the supervisor

Scientific appraisal of books The supervisor should be familiar with the objective scientific techniques that have been utilized to evaluate instructional materials and be able to apply at least the simpler procedures in the study of equipment prior to its purchase

Basic vocabulary As a means of checking the vocabulary of textbooks, various standard word lists are available The Thorndike [9] word lists the Gates [10] list and Krantz's [11] for reading, and the Horn [12] list for spelling and Barr and Gifford's [13] vocabulary for American history are examples Most publishers of primary reading textbooks will be glad to supply lists of the vocabulary used, indicating the amount of practice on the various words the number of new words per page, and similar kinds of statistical information

[8] Bloomington Ill Public School Publishing Co 1931

[9] F L Thorndike *The Teacher's Word Book* (New York Bureau of Publications Teachers College Columbia University, 1921)

E L Thorndike and I Lorge *The Teacher's Word Book of 30 000 Words* (New York Bureau of Publications Teachers College Columbia University 1944)

[10] A I Gates *A Reading Vocabulary for the Primary Grades* (New York Bureau of Publications, Teachers College Columbia University 1926)

[11] L L Krantz *The Author's Word List* (Minneapolis Minn, Curriculum Research Co 1915)

[12] E Horn *A Basic Writing Vocabulary*, University of Iowa Monographs in Education First Series, No 4 (Iowa City Iowa University of Iowa 1936)

[13] A S Barr and C W Gifford The Vocabulary of American History *Journal of Educational Research* Vol 20 (September 1929) pp 103 121

SCORE CARD FOR EVALUATING SIXTH GRADE TEXTBOOKS IN READING *

		Weighting
1	The textbook shall contain an appropriate amount and wide variety of intrinsically interesting materials to meet all types of reading interests such as social studies science and literature and maintain a satisfactory balance between such different types as (1) work type and appreciative reading (2) curriculum subjects and outside interests, and (3) poetry and prose	225
	a Quantity of material	75
	b Balance	
	(1) Balance between prose poetry and plays	15
	(2) Balance between major fields of reading materials	15
	(3) Balance between basic types of reading materials	25
	(4) Balance between curriculum subjects and outside interests	20
	c Recognition of and provision for basic reading interests	75
2	The vocabulary difficulty sentence structure and thought content shall be appropriate for sixth grade pupils	175
3	The materials contained in the textbook shall be of a high literary character	175
4	The textbook shall contain appropriate aids to pupils for studying the selections and shall be so designed as to provide training and practice in developing reading skills and shall contain appropriate aids to assist teachers	100
	a Pupil aids	60
	b Teacher aids	40
5	The textbook shall contain a large percentage of material not appearing in other sixth grade readers	100
6	The material shall be so organized within the book as to present a suitable reading program for sixth grade pupils	75
7	The textbook shall provide for an extensive reading program by means of references to supplementary and library materials	50
8	Appropriate illustrations shall be included	50
9	The format of the book shall conform to a high standard	50
Total		1000

* I R Waterman and I R Melbo 'Selection of Sixth Grade Reading Textbooks for California Adoption" *California Journal of Elementary Education* Vol 3 (February, 1935) pp 133 141

Techniques for analyzing the contents of textbooks To make possible reliable, fairly objective measurements of textbooks a variety of specific techniques have been devised Patty and Painter [14] suggested a formula for measuring the vocabulary burdens of textbooks Hockett and Neeley [15]

[14] W Patty and W L Painter A Technique for Measuring the Vocabulary Burden of Textbooks *Journal of Educational Research* Vol 24 (September 1931) pp 127 134

[15] J Hockett and Dets Neeley A Comparison of the Vocabularies of Thirty Three Primers *Elementary School Journal* Vol 37 (November 1936) pp 190 202

devised a plan for studying the size, frequency, and usefulness of the vocabularies in primers. Vogel and Washburne[16] developed a plan of analyzing various structural elements of reading materials that has been found to be of value in determining the grade placement of children's reading selections. These and similar procedures[17] provide objective means of analyzing the contents and making direct comparisons between books. Ratings based on such data are hence much more dependable than ratings based on subjective judgments and general impressions alone. Other factors must be considered also.

There has been considerable criticism of the use of word lists in evaluating the vocabulary load of textbooks and other reading materials, particularly by teachers of English and by semanticists. The position is taken that pupil interest and need often require the use of materials in which the vocabulary is considerably beyond the limits of these word lists, for example, in an experience program in reading in the primary grades. It is also contended that since words have different meanings particularly in different contexts, the uncritical use of a list of words in evaluating a textbook is an unsound procedure.[18]

There is undoubtedly some merit in these contentions. It should however be pointed out that studies of textbooks have shown that there is a great unevenness in the vocabulary load especially in the primary grades. The burden is often so great that slow pupils have considerable

[16] Mabel Vogel and C. W. Washburne. An Objective Method of Determining Grade Placement of Children's Reading Materials. *Elementary School Journal*. Vol. 28 (January 1928) pp. 373-381.

[17] B. R. Buckingham. The Scientific Development and Evaluation of Textbook Materials. *Official Report 1933* (Washington, D.C.: Department of Superintendence of the National Education Association, 1933) pp. 159-166.

W. S. Gray and Bernice Leary. *What Makes a Book Readable* (Chicago: University of Chicago Press, 1935).

M. T. Herriott. Scientific Textbook Selection. *Science Education*. Vol. 17 (April 1933) pp. 98-105.

E. B. Knight. Some Considerations of Method. In *Report of the Society's Committee on Arithmetic, Twenty Ninth Yearbook* of the National Society for the Study of Education (Bloomington, Ill.: Public School Publishing Co., 1930) Part I, Ch. 4. See also Part II, Ch. 5.

A. S. Lewerenz. A Vocabulary Grade Placement Formula. *Journal of Experimental Education*. Vol. 3 (March 1935) p. 236.

N. Kearney. Sentence Length in 121 Representative First Grade Readers," *Journal of Educational Research*. Vol. 38 (February 1945) pp. 447-461.

I. R. Melbo and I. R. Waterman. Pictures in Geography Textbooks. *Elementary School Journal*. Vol. 36 (January, 1936) pp. 363-376.

Ruth Olson. The Changing Content of Ninth Grade Mathematics Texts. *Mathematics Teacher*. Vol. 26, pp. 307-314.

M. Tinker and D. Paterson. Differences Among Newspaper Body Types in Readability. *Journalism Quarterly*. Vol. 20 (June 1943) (Reprint).

E. L. Thorndike. The Vocabulary of Books for Children in Grades 3 to 8. *Teachers College Record*. Vol. 38 pp. 196-205.

C. I. Wise. The Spelling Difficulty of 1102 Words Found in Twenty Spellers. *Elementary School Journal*, Vol. 36 (December 1935), pp. 281-289.

[18] I. Lorge, Word Lists as Backgrounds for Communication. *Teachers College Record*, Vol. 45 (April 1944) pp. 543-53.

difficulty in reading The teacher who knows the vocabulary loads of books and their reading difficulty is able to make effective adaptations of materials to the level of ability of the pupils Words lists should in any case not be regarded as fixed and final Teachers should recognize the fact that words in lists may have many different meanings and present them accordingly in a variety of settings To assume that a word has only one meaning is definitely misleading Everyday conversation with children reveals the difficulty here

Format of books Problems of format deal with such questions as size of type, length of lines, illustrations, and color of print The studies of Bamberger,[19] Buckingham,[20] Tinker,[21] Paterson and Tinker,[22] and Mellinger[23] have made valuable contributions in this field The references below should be consulted by those interested in questions of format

Studies of children's interest The results of studies by Bruner,[24] Washburne,[25] Jordan,[26] Pollock,[27] Washburne,[28] and many others of children's interests in literature science, and other fields are very helpful in evaluating books from the point of view of their appeal to children According to Gates the elements in children's reading material that contribute most to interest are [29]

[19] Florence Bamberger *The Effect of the Physical Makeup of a Book upon Children's Selection* (Baltimore Md Johns Hopkins University 1922)

[20] B R Buckingham in *The Textbook in Education Thirtieth Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co 1931)

[21] M A Tinker Hygienic Lighting Intensities *Journal of Industrial Hygiene* Vol 17 pp 258 262

[22] D G Paterson and M A Tinker Black Type Versus White Type *Journal of Applied Psychology* Vol 15 (June 1931) pp 241 247

——— Studies of the Typographical Factors Influencing Speed of Reading XI Role of Set in Typographical Studies XII Printing Surface XIII Methodological Considerations *Journal of Applied Psychology* Vol 19 (December 1935) pp 647 651 Vol 20 (February 1936) pp 128 131 132 145

[23] Bonnie L Mellinger, *Children's Interests in Pictures* Contributions to Education No 516 (New York, Bureau of Publications Teachers College Columbia University 1932)

[24] H B Bruner Determining Basic Reading Materials Through a Study of Children's Interest and Adult Judgments *Teachers College Record* Vol 30 (January 1929) pp 285 309

[25] C W Washburne A Crude Placement Curriculum Investigation A Study of Children's Interests *Journal of Educational Research* Vol 18 (April 1926) pp 284 292

[26] A M Jordan *Children's Interests in Reading* Contributions to Education No 107 (New York Bureau of Publications Teachers College Columbia University 1921)

[27] C A Pollock Children's Interests as a Basis of What to Teach in General Science *Educational Research Bulletin*, Vol 3 No 1 1924

[28] C W Washburne and Mabel M Vogel *What Children Like to Read* (Chicago Ill Rand McNally & Company 1929)

[29] A I Gates *Interest and Ability in Reading* (New York The Macmillan Company 1930)

D Zeller *The Relation and Importance of Factors of Interest in Reading Materials in Junior High School Pupils* Teachers College Contributions to Education No 841 (New York, Bureau of Publications Teachers College, Columbia University 1941)

1 *Surprise* unexpectedness, unforeseen events, happenings, conclusions, and outcomes
2 *Liveliness* action movement, having 'something doing'
3 *Animalness* presentations of things animals do, of acts about them and their characteristics and experiences
4 *Conversation* talk
5 *Humor* from the child's point of view
6 *Plot*
7 *Suitability* intelligible, within the range of child's experience
8 *Freedom from difficulty* resulting from adultness of content from too great concentration (lack of repetition) from complicated sentence structure abstract conceptions

The application of these criteria is not an easy task The procedures for doing so are described in the references listed

Difficulty of materials Dependable methods of studying the difficulty of materials included in textbooks are available The two basic methods used are the comparison of the contents of book with materials of standardized difficulty and the actual testing of pupils on materials selected on a sampling basis from the books to be evaluated An excellent method of studying the contents of arithmetic textbooks from the first point of view is to compare the grade placement of the various processes with the grade arrangement of the topics as recommended by the Committee of Seven[10] Important criticisms of the work of this committee are discussed in the references given below In the same way the difficulty of the problems in an arithmetic textbook can be determined by rating their difficulty in comparison with problems in a standard scale[11] An example of the second approach was the method used by Miss Ayer[12] to determine the difficulty of materials in history textbooks by measuring the level

[10] C W Washburne Mental Age and the Arithmetic Curriculum *Journal of Educational Research* Vol 29 (March 1936) pp 481-491

For a discussion sharply critical of the work of the Committee of Seven see W A Brownell A Critique of the Committee of Seven's Investigation of the Grade Placement of Arithmetic Topics *Elementary School Journal* Vol 38 (March 1938) pp 495-508

Child Development and the Curriculum *Thirty Eighth Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co 1939) Part I contains an authoritative discussion of research in all areas of the curriculum on the gradation of subject matter Chapter 16 contains a detailed summary of the recommendations of the Committee of Seven

W A Brownell Readiness and the Arithmetic Curriculum *Elementary School Journal* Vol 38 (January 1938) pp 344-354

C Washburne The Values Limitations and Applications of the Findings of the Committee of Seven, *Journal of Educational Research*, Vol 29 (May 1936) pp 694-707

——— A Reply to Brownell's Critique of the Committee of Seven Experiments *Elementary School Journal* Vol 39 (February 1939) pp 417-431

[11] L J Brueckner and G Laumann The Measurement of Accuracy of Judgments of the Difficulty of Arithmetic Problems *Educational Method* Vol 12 (March, 1933), pp 338-345

[12] A Ayer, *Difficulties in Elementary School History* Contributions to Education, No 212 (New York Bureau of Publications Teachers College Columbia University, 1926)

of reading ability required to read selected passages from them To do this objective tests based on the materials were administered to the pupils The same procedure has been applied to the study of the difficulty of other reading materials,[33] and of arithmetic problems.[34] Matthews[35] used a test procedure to determine the difficulty of graphic materials in social studies textbooks

Washburne has published a formula which will enable the supervisor to determine the level of reading ability required to read a particular book Washburne's description of the application of this formula to a particular book follows [36]

It is not necessary here to explain in detail how we finally determined the best combination of elements for the making of the formula Suffice it to say that after many trials and much study we found a combination which gave us a high correlation (86) with grades all the way from the first to the ninth which corrected the skewing of the Winnetka Graded Book List and which was simpler than the earlier formula and predicted with satisfactory accuracy the degree of reading ability needed by children to read a given book with pleasure The probable error of estimate was 0 8 of a grade—as close as could be desired or warranted

The three elements that go into this new formula are simple

1 In a thousand words from a systematic sampling of the book how many different words are there?
2 Of this same thousand words how many are not among the 1 500 commonest in the English language?
3 Out of seventy five sentences sampled systematically how many are neither complex nor compound?

These are combined in a regression formula as follows

Number of different words in 1 000 multiplied by 00255
Plus number of different uncommon words in 1 000 multiplied by 0458
Plus a constant 1 294
Minus number of simple sentences in 75 multiplied by 0307
Yields the grade of reading ability necessary for satisfying reading of the book

Perhaps this formula will be a little more intelligible if it is applied to a book *Tom Sawyer* for example

Number of different words in 1 000	— 378 × 00255	=	0 951
Plus Number of different uncommon words in 1 000	— 117 × 0458	=	5 359
Plus Constant			1 291
			7 601
Minus Number of simple sentences in 75	18	0307 =	553
			7 051

[33] P Cutright G Halvorsen and L J Brueckner A Study of One Factor in the Grade Placement of Reading Materials,' *Elementary School Journal*, Vol 29 (December 1928) pp 284 295

[34] L J Brueckner and J Irving A Technique for Comparing the Difficulty of Problems in Arithmetic Textbooks *Elementary School Journal*, Vol 33 (December, 1932), pp 283 285

[35] C O Matthews *The Grade Placement of Curriculum Materials in the Social Studies*, Contributions to Education No 241 (New York Bureau of Publications Teachers College Columbia University, 1926)

[36] C W Washburne and Mabel M Vogel, Grade Placement of Children's Books, *Elementary School Journal*, Vol 28 (January 1928), pp 355 364

Tom Sawyer can be easily read, therefore by a child with a reading ability of grade 7.1. Practically, this figure means that the book is suitable, as far as difficulty is concerned, for children of seventh grade ability or higher.

SIGNIFICANCE OF ELEMENTS OF DIFFICULTY FOR ALL READERS*

Elements of Greatest Significance	*Elements of Some Significance*	*Elements of Little Significance*
Average sentence length in words	Percentage of content words	Number of asides
Percentage of easy words	Percentage of structural words	Total number of words per paragraph
Number of words not known to 90 per cent sixth grade pupils	Number of *t* words	Number of *b* words
Number of easy words	Number of figures of speech	Number of *e* words
Minimum syllabic sentence length	Percentage of complex sentences	Percentage of compound complex sentences
Number of explicit sentences	Number of compound complex sentences	Number of clauses introduced by conjunctive adverbs
Number of first, second, and third person pronouns	Number of infinitive phrases	Percentage of compound and compound complex sentences
Maximum syllabic sentence length	Number of first person pronouns	
Average sentence length in syllables	Number of complex sentences	
Percentage of monosyllables	Percentage of bisyllables	
Number of sentences per paragraph	Number of *h* words	
Percentage of different words not known to 90 per cent of sixth grade pupils	Percentage of simple sentences	
Number of simple sentences	Number of clauses introduced by subordinate conjunctions	
Percentage of different words	Number of *a* words	
Percentage of polysyllables	Number of compound and compound complex sentences	
Number of prepositional phrases	Number of clauses introduced by relative pronouns	
Number of third person pronouns		
Range of syllabic sentence length		
Number of different words		
Number of infinitive and prepositional phrases		

* Gray and Leary, *op. cit.*

As the result of a very comprehensive study of numerous factors that condition the reading difficulty of books for adults of relatively inferior reading ability, Gray and Leary compiled a list of the items about books that are related in varying degrees to the difficulty of books for all readers. The table on this page gives a list of items arranged according to their significance for all readers. It can be seen that some items are of major importance in determining reading difficulty of books, whereas others are of little consequence. In their report Gray and Leary present a series of nine regression equations for determining the reading difficulty of books, for adults of relatively inferior reading ability. They involve

various combinations of the following factors, four of them appearing in each equation

1 Number of different hard words in a passage of 100 words
2 Number of easy words
3 Percentage of monosyllables
4 Number of personal pronouns
5 Average sentence length in words
6 Percentage of different words
7 Number of prepositional phrases
8 Number of simple sentences

These equations should not be applied to determine the reading difficulty of children's reading material since other factors affect the reading difficulty of books for children such as the presence of unusual words or specialized vocabulary found in the writings read by some adults Similar procedures are described in the references below [7]

Other means of appraisal Several other means of studying the merits of books and workbooks may be suggested They may be tried out in the classroom to observe how the children react to them and how easily they can be administered by the teacher Book reviews and appraisals by experts can be consulted Various types of statistical procedure can be applied to the contents to study the overlapping of several books The amount and distribution of practice can be found by simply counting the examples or words on each page and finding the total In all cases the supervisor will find it helpful to make some sort of quantitative study of instructional materials so that the conclusions will be based on facts rather than on general impressions

The evaluation of workbooks For years there have been available commercially prepared drill materials in the form of practice exercises in arithmetic reading, language and the social studies or reading charts, and of many others In recent years there have been published large numbers of workbooks which contain a wide variety of instructional aids and practice exercises Many workbooks are designed to accompany a given textbook others supply materials in some field without reference to any particular textbook The better workbooks are so well organized and prepared that they are practically self instructive and their use enables the teacher to adapt the work to the needs, rate of learning, and interests of individual pupils Less desirable workbooks merely include a mass of supplementary miscellaneous drill material which is so organized and arranged that it is practically impossible to adapt instruction to individual differences Furthermore, there is real danger that the use of these inferior kinds of workbooks will lead to isolated and meaningless drill that is assigned indiscriminately as a form of busy work In so far

[7] R Flesch *Marks of Readable Style*, Teachers College Contributions to Education No 897 (New York Bureau of Publications, Teachers College Columbia University 1943)
Irving Lorge Predicting Readability *Teachers College Record* Vol 45 (March 1944) pp 404 419

as is possible practice based on materials in workbooks should grow out of needs derived from meaningful experience or be readily integrated with such experiences

SUMMARY OF PROVISIONS FOR ESSENTIAL FEATURES*
(Eighteen series of arithmetic workbooks for grades 3 4 5 and 6 are included in the analysis)

Essential Features (listed by number)	*Total Number of Workbook Series in Which There Is*		
	Adequate Provision	*Partial Provision*	*No Provision*
1 Instructions and directions for each lesson	12	5	1
2 Clearness of statement and selection of vocabulary	10	7	1
3 Attractive make up and appropriate illustrations	2	12	4
4 Progress charts or records of achievement	6	2	10
5 Material of practical usefulness for maturity level	4	8	6
6 Premium upon improvement rather than upon the achievement of a norm	4	4	10
7 Diagnosis of individual weaknesses	5	—	13
8 Flexible assignment of remedial work	7	2	9
9 Problem solving practice as distinct from mere drill	14	3	1
10 Drill material in fundamental processes of arithmetic	16	2	—
11 Material based upon use of experimental editions	8	—	10
12 A definite system of drills reviews and tests	7	10	1
13 Mastery tests to indicate the degree of attainment (based upon the establishment of a norm)	11	3	4

* Earl P Andreen A Study of Workbooks in Arithmetic *Journal of Educational Research* Vol 32 (October 1938) pp 108 17

The criteria to be considered in evaluating workbooks should be formulated in terms of the functions they serve These vary from subject to subject Criteria for evaluating a workbook in primary reading for example are not likely to be the same as those for appraising an arithmetic workbook for the intermediate grades An interesting approach to be used in developing criteria for evaluating workbooks is reported in a study by Andreen [8] With the assistance of a group of experts Andreen set up a series of thirteen essential features that it was agreed should be included in arithmetic workbooks for grades 3 to 6 Then he applied these criteria with striking results to eighteen series of workbooks published prior to 1938 In the table on this page are given the list of criteria and

[8] Earl P Andreen A Study of Workbooks in Arithmetic *Journal of Educational Research* Vol 32 (October 1938) pp 108 125

the ratings he gave to the sets of workbooks based on his own estimates of the extent to which each feature was provided

Andreen comments as follows on the data given in the table [39]

> The results of analysis show that many of the workbooks in arithmetic are lacking in their provision for certain features that provide the conditions essential to efficient learning The provision for knowledge of the goal of the lesson and the provision for tests and measurements seem to be adequately accounted for in more than half of the workbooks examined Recognition of factors in the selection and organization of subject matter has also been followed in a majority of the books analyzed The greatest weaknesses in the workbooks were found to be in the provisions for motivation and in organization for recognition of individual differences Of the eighteen series of workbooks analyzed, only two series made provision for the motivation features judged to be essential Even a partial provision for this condition was found to be lacking with less than one third of the workbooks recognizing isolated elements relating to factors of motivation Only five series of workbooks out of the eighteen analyzed were found to have provisions for both diagnostic and remedial work features judged to be essential A majority of the workbooks included in this analysis will find much room for improvement according to the criteria that have been outlined

In the same study Andreen also reported the results of observations of the use of workbooks in a large number of classrooms in several school systems He showed that in many classes the workbook represented merely a series of convenient tasks and exercises the doing of which is to be rigorously directed by the teacher In other classes teachers regarded the workbook 'as a service tool to be used by the student in ways dictated by his individual needs and desires' He also reported that 'a majority of teachers' depend upon these workbooks to the extent that 'their own personality is almost entirely removed from the teaching learning situation He adds the significant comment, 'Teachers who assign the teaching function to a printed page within a workbook are not giving the optimum of learning service to their pupils' Further studies of this problem are much needed

Andreen's criticisms of arithmetic workbooks and of the ways in which they are used by teachers are similar to those made for workbooks in other curriculum areas by many observers It can be seen from the table on page 467 that some of the workbooks which Andreen analyzed met the proposed standards fairly well The effective use of these and other well constructed workbooks by teachers who understand their functions as well as their possible limitations is an important factor in the guidance of the learning activity The elimination of workbooks that are nothing more than compilations of routine drill exercises, which are to be assigned as "busy work," should be a supervisory goal The selection of any workbook should be done on the basis of criteria that stress the contribution such materials should make to the guidance and improvement of learn-

[39] *Ibid*

ing A good workbook in the hands of a skilful teacher is a valuable instructional aid [40]

Accessibility of instructional materials The accessibility of materials is an important factor determining their use The supervisor should determine whether materials are stored in convenient places or whether they are placed in central depositories that are difficult to reach Often the regulations governing the loaning and use of materials loaned by libraries, museums visual instruction departments, and other agencies are so complicated and rigid that teachers hesitate to ask for these supplies There may be no good system of collection or delivery of loaned materials hence there may be long delays in securing desired supplies If there is a supply of materials in the school, it may not be arranged in good order or catalogued so that desired items can easily be located The financial arrangements for purchasing new supplies may be unnecessarily involved so that there is a long interval of time between the time the order is placed and the receipt of the materials These and similar problems should be carefully investigated by the supervisor Not the least important question is the accessibility of pupil records and reports, professional books for teachers and supplies of tests and similar materials This factor can be improved in most schools

The following set of criteria will be helpful in studying the variety of procedures that may be used by schools in handling materials and supplies The criteria deal with the characteristics the selection, and their storage and the responsibilities of the teachers and pupils for their care The three types of conditions described are outgrowths of different philosophies of teaching and supervision

VARIETY OF PROCEDURES IN HANDLING MATERIALS AND SUPPLIES *

Formal	*Less Formal*	*Informal*
1 *Who selects the materials and supplies?*		
Central authority makes selection and determines distribution	Uniform supply list made by principals special teachers and classroom teachers working together	Selected by those using them teachers and children in the light of the varied activities to be carried on Provision made by administrative officers for examination experimentation and evaluation of new materials

* "Materials and Supplies in Unit Teaching" Circular No 2 Informal Teaching Series (Albany, N Y State Education Department 1933)

[40] Critical studies of workbooks are increasing A class report here should cover current materials

VARIETY OF PROCEDURES IN HANDLING MATERIALS AND SUPPLIES (*Continued*)

Formal	*Less Formal*	*Informal*
2 *What are the desirable characteristics of materials and supplies?*		
Standardized Uniform for all children in each group Small enough to be used at desks Planned to supplement the teaching of skills Limited to a few types Use to be dictated by teacher	Planned to supplement the teaching of skills but used as individuals need them Limited to a few types Printed directions for their use a common accompaniment	Variety in type Adapted to variety of uses Lend themselves to uses made of them outside of the school Suggestive of other needed materials Suggestive of many and varied uses to suit individuals and groups growing demands Use is determined by the individuals or groups purposes The use of such conducive to child health Tending to large rather than small activities Suitably esthetic
3 *What is adequate storage space?*		
Small cupboards narrow shelves Uniform spaces Placed for teacher's use	A few wide shelves Many bookshelves One or more cupboards available to children	Well lighted space conveniently arranged Easily accessible to the work at hand Adjustible to changing demands Much storage space to care for large and small materials Conveniently placed for children's uses
4 *What is the teacher's responsibility in respect to materials and supplies?*		
Central office sends from supply list items needed to complete course of study Teacher selects distributes and carries responsibility for care and economical use of these supplies	Cooperates in making up yearly supply list Appoints certain children to make available to the rest of the group the daily supply	Contributes to the general list of sources and supplies Searches new sources for needed materials Contributes material of her own Constructs needed materials Experiments with possibilities of materials Makes available to children sources for and means of securing needed materials Makes children responsible for care and use of materials

Formal	*Less Formal*	*Informal*
5 *What are the children's responsibilities with respect to materials and supplies?*		
Use materials given them as directed Distribute and collect materials when appointed to do so	Most capable children have opportunities for the selection distribution and care of material All children made responsible for care and use of certain materials assigned to them	Contribute materials from their own supplies at home Construct needed materials at school and at home Seek available sources of material Secure needed material from available sources in a proper fashion Children develop a growing responsibility for the care and economical use of their own materials used by all the group

The use of concrete experiences Because of the extreme bookishness and verbalism of much of classroom instruction, the schools are making increased use of a wide variety of concrete experiences to make learning less formal and more meaningful There are many sources of such experiences objects models museum exhibits excursions, field trips, constructive activities and direct participation in community enterprises Their use not only clarifies ideas but also stimulates pupil interest, encourages pupil activity and breaks down the barriers between life and the school

The criteria for evaluating any concrete experience are (1) its usefulness in achieving the purposes of instruction (2) its contribution to the meaning and understanding of some important concept or of a social or an industrial process (3) the extent to which it stimulates critical thought and (4) its authenticity and genuineness

In a discussion of constructive activities Horn [41] shows that some of those used widely in our schools today have little if any authenticity, whereas others are true to life and involve the participation of pupils in real lifelike community enterprises His analysis classifies activities into five groups according to the degree of reality that is achieved and thus provides an excellent basis for appraising the merits of such activities in any classroom He defines these five levels as follows [42]-

1 Lowest of all are the constructions that are largely fanciful and almost wholly erroneous An Indian peace pipe is represented by a large bowl

[41] Ernest Horn *Methods of Instruction in the Social Studies* (New York, Charles Scribner's Sons 1937)

[42] Reprinted from *Methods of Instruction in the Social Studies* by Ernest Horn by permission of Charles Scribner's Sons, pp 420 429 The illustrations given are taken from actual classroom activities

with enough stems so that all members of the council can smoke at once, and a drawing of a single person climbing a steep hill to reach a lone hut at the top depicts the capture of Vicksburg

2 A little higher in the scale are various types of construction that are illustrative in a limited sense but that are so far removed from the realities they purport to represent as to distort rather than clarify the student's ideas. Most paper construction belongs to this class. Trees, animals, garden vegetables, bridges, boats, trains, castles, and whole cities are made with scissors and paste. In the same category are most representations of scenes and episodes in sand, clay, and similar materials. Although such constructions are generally ludicrous in their inadequacy, many show a degree of effort and ingenuity that deserve a better outlet.

3 Other types of models are on a much higher intellectual level than those described above. Modeling natural features and regions in relief with sand, clay, paper pulp, or other plastic materials is no longer used so extensively as it formerly was, but the practice is not uncommon even today. Such models usually involve much more careful study than in the case of most of the historical and geographical scenes described above, yet they suffer from the same limitations that are always found in the attempt to reproduce extensive and complicated features in miniature. The objection to such small models is that unless they are made to scale they distort the physical features, and if they are made to scale, they fail to bring out the significance of these features. It is in the understanding of more simple objects, however, that models have proved most useful.

4 Closely akin to the construction and use of working models are those constructive activities that help the student to understand the processes by which fundamental material needs are satisfied. The methods of obtaining food, clothing, and shelter are most frequently illustrated, but considerable attention is given also to related problems, such as those involved in transportation, communication, recreation, the improvement of health, the keeping of records, and the making of tools and utensils. Primitive processes and those of the period of relative self-sufficiency are most often duplicated. The chief steps in the transformation of raw materials into usable products are illustrated.

5 The direct participation in the solution of community problems, while not adequately described by the term, *constructive activity*, has nevertheless much in common with the type described in the preceding section. Many advantages inhere in these out-of-school activities. They display social problems in all of their complicated human relationships. Because they demand the solution of practical difficulties, they strengthen moral and intellectual fiber to a degree not easily matched in the protected circumstances of the school. They give a sense of the responsibility and dignity of induction into citizenship that is not equaled by any other type of project, and certainly not by types of instruction that consist only in make-believe or even in reading and talking about community problems. They are preeminent in the development of the various concomitants usually claimed for activities in the school.

The discussion of methods of improving the use of concrete experience will be fully considered in Chapter XIV. At this point we are merely concerned with the basis on which the teacher and supervisor can evaluate the use being made of this kind of activity in the classroom. This series

of levels can be used as the basis of discussions of ways of improving the use of concrete experiences

Visual aids in instruction To bring about desired changes in the behavior of children the modern school uses a wide variety of visual aids still pictures of all kinds, sound and silent motion pictures, school journeys of various kinds museum materials models and exhibits charts maps and graphic representations In addition to these aids commonly recognized as visual there is also a wide variety of concrete materials which are also visual in nature which are used to give meanings and manipulative experience

In general the experimental studies of the uses of these aids particularly those dealing with the motion picture and excursion show that they have genuine value in teaching Significant gains in learning have resulted from their use especially in such areas as the assimilation and retention of information the development of interests and attitudes and the acquisition of skills and occupational techniques There is an excellent summary of these studies in the *Encyclopedia of Educational Research* under the heading Visual Education to which the reader is referred for further details and a bibliography These studies have shown that the effectiveness of the use of these aids depends on a variety of factors such as the following

1 The purpose for which they are used
2 The age and background of the children or group using them
3 The type of materials studied
4 The skill and method of presentation
5 The authenticity of the materials
6 The influence of the teacher

Methods of studying the use made of visual aids Visual aids should be used for educational purposes to develop meanings to broaden experience and to arouse genuine interest in the activity at hand They should be true to life artistic, and correct to scale so that the pupils will be likely to establish correct concepts and will be stimulated to desirable kinds of responses and behavior If projection equipment is used special attention should be given to such matters as good lighting, clarity of projection comfortable seating and ventilation The visual aids selected by the teacher and pupils for the unit of work should be correlated with other kinds of sensory appeals especially those of hearing and kinesthetic sense, so as to form a balanced multi-sensory experience

The relation of the motion pictures and child development In the average motion picture theater about one third of the audience is of adolescent age or younger Three per cent are less than seven years of age The great majority of children attend movies either once or twice a week As would be expected, attendance varies greatly with the day of the week Sometimes the theater is a clean cool place, often it is hot, stuffy, and poorly ventilated

The movies children see at the theater are determined in part by what they like but mostly by what is available The great majority of films are adult in theme, such as crime, sex and love Even though the material is adult, it is presented in a form intelligible to immature minds, hence, it may be dangerous The choices of children are not necessarily the same as for adults When, in a recent survey, boys were asked to indicate the kinds of movies they preferred, they voted as follows

Westerns	20 per cent
Adventure	15
Comedy	13
Mystery	10

The girls voted as follows

Romance	19 per cent
Comedy	13
Westerns	12
Tragedy	9

Research has shown that children remember as much of a picture as do adults Of action they best remember sports crimes, acts of violence, and scenes with a highly emotional appeal Sad as well as humorous details are also well remembered The restlessness during night sleep is increased from 15 to 25 per cent after attendance at a movie, consequently, fatigue and irritability are often present the next day

Frequent attendance at movies has some unfavorable effect on school work but not decisively so The delinquent child sees more movies than does the normal child This may be a protest against the barrenness and drabness of his daily life It is quite likely that pictures depicting violence and crime produce a most unwholesome effect on children of poor background and on those who tend to be over-suggestible

Movies have to some extent replaced reading In so far as they have reduced the amount of reading of excellent children's literature they may be regarded as a detriment On the other hand a glance at the average audience will convince the observer that it contains many individuals who are not the type that ever finds enjoyment in reading good books For them the better service brings enrichment of experience and understanding of human motives, and often an uplift of spirit the social values of this elevation cannot be overestimated The school faces the problems of gradually raising the standards of the children and of making suitable use of motion pictures in the instructional program because they are an instrument of tremendous potential value At the same time producers and exhibitors must take steps to raise the general tone and quality of the films to a higher level The following statement by Charters effectively states the problem [43]

[43] W W Charters *Motion Pictures and Youth* (New York, The Macmillan Company, 1933) pp 60 63 By permission of the publishers

Certainly the problem of movies and the children is so important and critical that parents, producers, and public must willingly and intelligently cooperate to reach some happy solution The producers occupy the key position The public at present must take, within the limits of the censorship of the states, whatever pictures are made

The situation points unmistakably to the establishment by the producers of a children s department whose primary function will be to experiment, to invent to try out, to eliminate to press persistently until they produce proper solutions to the problem This research organization is clearly indicated It does not appear that such experimentation would be expensive The simple obligation rests upon those producers who love children to find a way of making the motion picture a beautiful, fascinating and kindly servant of childhood

Criteria for the selection of motion pictures Many sets of standards for evaluating instructional films have been proposed A survey of the points they include leads to the suggestion of criteria that should be considered

1 The film should be chosen because it contributes directly to some need of the pupils that arises in the course of the on going activity
2 The film should be appropriate to the school level at which it is to be used
3 The social values inherent in the film should be carefully weighed
4 The film should appeal to socially approved native interests and to whole some emotional responses
5 Careful consideration should be given to the mechanics of the film, in cluding such factors as the quality of photography, vocabulary, conti nuity, duration captions and clarity
6 The cost and accessibility should also be considered
7 The material should be accurate and up to date

Standards for the selection and use of film projection equipment in clude such items as the following simplicity, safety, portability adapt ability, durability economy of operation, and quality of sound produced

In studying the use made of visual aids attention should be given to such matters as the extent of use being made of these aids, their quality and adequacy the use being made of community resources in instruc tion, the difficulties teachers and pupils encounter in the use of these aids especially the technical equipment needed, the training teachers have had in the use of visual aids, the extent of film damage, the training and use of student operators to assist the teachers, the storage facilities available and the kinds of visual aids accessible in the community

The procedures to use to gather these different kinds of information are similar to those used to secure facts about any other aspect of instruc tion observation of the classroom use of the materials, interviews with teachers and administrative officers, questionnaires, reports, analysis of records of the use of materials, requests for assistance, and the like

The radio in education In nine out of ten homes adults and children spend several hours a day listening to radio broadcasts of varying degrees of excellence The extent of use of the radio in classrooms as a means of instruction has not been determined for the country as a whole by sys-

tematic investigation There is evidence that its use is increasing in recent years due to the provision of better types of programs by interested agencies A succinct summary of the use of audio aids in 2,348 rural and urban schools of the state of Ohio revealed the following information which the survey staff believes presents a picture that is somewhat better than can be expected for the different states of the country as a whole [44]

	Yes *per cent*	No *per cent*
Do schools have radios?	51 6	15 4
Do schools have central radio sound systems?	11 5	88 5
Do schools have equipment for playing recordings?	37 4	62 6
Do schools have transcription players?	7 6	92 4
Do schools have recorders?	1 6	95 4
Do schools use school broadcasts?	15 1	84 9
Do schools have radio workshops?	2 7	97 3
Do schools have radio courses or units?	11 9	85 1
Do schools use out of school broadcasts?	77 5	22 5
Do schools have students participating in radio programs?	13 4	86 6

A scrutiny of the data presented above reveals a condition that will strike the enthusiast for the use of audio aids as very unsatisfactory a situation due to a variety of causes among them lack of appreciation of the value of these aids the failure of available programs to integrate with the curriculum, difficulties of scheduling and lack of training by the staff in the use of the radio

Criteria for appraising radio broadcasts There is a wide variation in the value and quality of radio broadcasts for instructional purposes Many of them are for entertainment only While there is reason why the school should include such programs in its activities by far the more valuable type of program is one that is intended more definitely for instructional purposes Tyler has proposed the following three major criteria for evaluating the merits and adequacy of a broadcast [45]

1 Educational Value
   - *a* Is the information authentic?
   - *b* Are the generalizations the children are likely to make from the program sound?
   - *c* Are various points of view on controversial matters presented?
   - *d* Are the implied concepts accurate?
   - *e* Are the emotional reactions of the listeners likely to be wholesome?

2 Clarity and Comprehensibility of Content
   - *a* Can the program be easily followed and understood?
   - *b* Is the program good radio?
   - *c* Does the material presented lend itself to sound treatment?

[44] Radio in the Schools of Ohio *Educational Research Bulletin* Vol 21 No 5 (May 13 1942) pp 115 148

[45] Adapted from the article by I Keith Tyler The Educational Evaluation of Radio Programs *Radio and the Classroom* (Washington D C National Education Association 1941)

3 Interest and Appeal
   a Is the material suitable for the level of maturity of the audience?
   b Is the material "talked down" to too low a level?
   c Does the subject matter deal with content within the range of experience and interest of the children?

Such additional factors should be considered as the availability for teachers of helps in conducting the program, its relation to the content of the curriculum, its timeliness and the source of the program.

Methods used to appraise audio aids. Audio aids may be evaluated by means of one or more of the following procedures:

1 Observations may be made of the ability of the pupil to use the aid.
2 Evidence may be secured of the extent to which they contribute to meanings and understandings.
3 A study may be made of pupil interest in the aid and attitude toward it.
4 The extent of use made of the aid by teachers and pupils is an important consideration.
5 The reactions of pupils of different mental levels can be checked during lessons.
6 The authenticity of the information should be checked.
7 Tests and examinations may be given after their use to discover how much has been learned.
8 Aids may be rated by means of check lists and rating scales.
9 The appropriateness to the age and background of the pupils can be analyzed.
10 Special attention should be paid to the durability, construction, hygiene and general attractiveness of the materials.
11 Experimental studies of the value of these materials are the most desirable basis of making an evaluation of these aids.

Pupil participation in evaluation of these materials is desirable. They can readily give their reactions as to the value of different kinds of aids. Often they prepare materials of this kind as a part of the regular class work. Standards for appraising their product should be developed cooperatively by teacher and pupils. In many schools the pupils are also taught how to operate the apparatus required.

Certain administrative features should also be considered when appraising the use made of these aids. *Special attention should be given to the* protection and preservation of the materials. It should be noted whether or not they are conveniently located and readily available when needed. The system of requisitioning, obtaining, and returning them should be examined to see if it operates efficiently.

SECTION 2

THE STUDY OF THE SOCIO-PHYSICAL ENVIRONMENT OF THE SCHOOL

The primary essentials of a wholesome physical environment of the classroom and the school as a whole include:

1 Attractive scheme of interior decoration
2 Provisions for adequate lighting and air-conditioning
3 Well adjusted comfortable seating arrangements
4 Work facilities for construction and creative work
5 A safe water supply and adequate toilet facilities
6 General cleanliness and orderliness
7 Safety provisions and fire protection

The fundamental requirement for a wholesome social environment in the school is contact with rich well integrated personalities Personalities that exercise a destructive influence upon teachers, pupils, and others should be removed from the school system Questions related to the problems of personalities will be discussed fully in the chapters dealing with teacher development Here we shall be concerned with means of studying the physical aspects of the school and classroom that affect learning In the next section we shall consider elements of the community as a whole that affect learning

Studying the school plant The intimate relation between the school plant and the quality of the educational program as well as its outcomes is not generally recognized or understood It seems clear that the program of the school may be seriously restricted and impeded by an inadequate plant The school building should not be planned and equipped merely as a place in which formal instruction is to be the dominant activity it should be planned as a functioning part of the total educational program of the community, it should be flexible enough to meet effectively the new demands that society is constantly making for the enrichment and broadening of learning opportunities and for the extension of the functions of the school to meet changing conditions The development of the entire school plant should be regarded as an integral part of a community planning program

A number of rating scales have been devised that may be used to appraise the construction of the school building the arrangement of the facilities provisions for special services and the adequacy of the equipment In rating any school building the rater should take into consideration such factors as the following

1 The underlying philosophy of education
2 The expressed purposes functions and objectives of the school since these differ widely
3 The needs and nature of the student body it serves
4 The nature and needs of the community

A particularly valuable approach to the evaluation of the school plant was developed by the Cooperative Study of Secondary School Standards [48] The assumption was made that evaluation alone is not enough, it was recognized that if evaluation stimulates the faculty or the citizens of a

[48] School Plant (1940 Edition) Cooperative Study of Secondary School Standards 744 Jackson Place Washington D C

community to take steps to bring about an improvement, the results of the application of a rating scale are likely to be of greater value than if the scale is merely applied in a routine way. Thus the application of the scale can serve two purposes, evaluation and stimulation. The need of a flexible scheme of rating was also recognized because of the wide variety of purpose, size, and function of the secondary schools in this country. The scale finally devised as a result of the activities of a large number of individuals consists of "promising conditions or characteristics found in good secondary schools." It was pointed out in the report that not all of the items are necessary or even desirable in every school. The use of the scale requires ratings by four symbols:

T Condition or provision is present to a very satisfactory degree
— Condition or provision is only fairly well made
O Condition or provision is not present or is not satisfactory
N Condition does not apply

An evaluation can also be made, as follows, in numerical terms which are to be regarded as convenient symbols rather than as mathematical quantities:

5 Very superior
4 Superior
3 Average
2 Inferior
1 Very inferior
N Does not apply

Given below are the major items and subheads included in this rating scale and the number of specific points (shown in parentheses) included for each of these subheads.

RATING OF SCHOOL PLANT

I *The Site*
- A Health and safety
  - 1 Conditions affecting health (7)
  - 2 Conditions affecting safety (6)
- B Economy and efficiency (6)
- C Influence on the educational program (12)

II *The Building*
- A Health and safety
  - 1 Illumination (15)
  - 2 Condition of air (8)
  - 3 Toilet and lavatory facilities (13)
  - 4 Provision for other bodily needs and comforts (5)
  - 5 Provision for safety of person and property (16)
- B Economy and efficiency
  - 1 Flexibility (8)
  - 2 Economy of space (6)
  - 3 Other factors affecting efficiency and economy (7)

C Influence on the educational program
1 Aesthetic factors, influences, and values (5)
2 Adequacy of space (27)
3 Fixtures which facilitate the educational program (12)
4 Suitable library facilities (11)

III *Equipment*
A Health and safety
1 General provisions for health (10)
2 General provisions for safety (8)
3 Provisions for health and safety in school buses (17)
B Economy and efficiency (7)
C Influence on the educational program
1 General equipment (15)
2 Library equipment (10)
3 Other special equipment (14)

IV *Special Services*
A Cafeteria dining rooms and kitchens (7)
B Clinics infirmary and hospitalization facilities (4)
C Sleeping and study quarters (17)

NOTE The number in ( ) after each point indicates the number of items included for that item in the original list which should be consulted for details

Other useful rating scales are listed below In the manuals that accompany these score cards the standards for appraising each item are described An examination of the details of the rating will make clear the shortcomings of a building The chief limitations of these and similar scales is that they are at best expressions of expert opinion only since the validity of most of the standards employed has not been established [47]

Useful rating scales developed since 1920 are the following

Butterworth School Building Score Card for One Teacher School Buildings (Yonkers on Hudson N Y World Book Company 1921)

Ivenden F S Strayer G D and Engelhardt N Scorecard for Physical Plant of Normal Schools and Teachers Colleges (New York, Bureau of Publications Teachers College, Columbia University 1924)

Strayer G D and Engelhardt N Score Card to Be Used in the Selection of School Building Sites (New York Bureau of Publications, Teachers College Columbia University 1929)

——— Standards for Elementary School Buildings (New York Bureau of Publications Columbia University, 1933)

Holy T C , and Arnold W E , Score Card for the Evaluation of Junior and Senior High School Buildings (Columbus Ohio Ohio State University, 1936)

Engelhardt N , Elementary School Building Score Card and Survey Manual (New York Bureau of Publications, Teachers College Columbia University, 1936)

The Strayer-Engelhardt Score Card for Elementary School Buildings is reproduced on pages 482 and 483 The score card is useful for rating

[47] L B Chenoweth and T K Selkirk *School Health Problems* (New York, F S Croft & Co 1937)

school buildings of the traditional type but does not meet standards required to satisfy demands of the modern educational program These requirements and the improvement of environment will be discussed more fully in Chapter XIV

Variability in school-building standards A yearbook of the National Society for the Study of Education was devoted to problems related to school buildings In that book there is given a detailed check list against which it is possible to check either plans of proposed buildings or the arrangements of existing buildings It is based on a consensus of experts On pages 481-485 are given the results of an application of this check list[48] to fifteen selected plans of school buildings approved by various state departments Very few of the standard items were included for all of the fifteen buildings A number of items were found in only a few buildings The reader will find it profitable to consider the data item by item

THE EVALUATION OF FIFTEEN SCHOOL BUILDING PLANS CHOSEN FROM PAMPHLETS ISSUED BY STATE SCHOOL BUILDING DIVISIONS[49]

The frequency of the occurrence of the items of the checking list in the fifteen plans is indicated in the column at the right

			Frequency
1	*Building*		
	A	*Gross structure*	
		1 Entrance	
		a Number and type	
		(1) Primary entrances give ready access to	
		(a) Auditorium	15
		(b) Gymnasium	8
		(c) Library	11
		(2) Special exits provided so main activities of building may not be interrupted when special activities are being carried on in	
		(a) Auditorium	7
		(b) Gymnasium	6
		(3) Service entrances for heating and fuel sections	11
		(4) At least one entrance directly from athletic field or playground to service toilets on ground floor	12
		(5) Provisions for proper entrance for coal ash and garbage service with a minimum of labor and inconvenience to the school	10
		b Entrances so arranged as to prevent undue hazards to pupils during freezing weather	7
		2 Provision for future expansion	1

[48] *The Planning and Construction of School Buildings Thirty Third Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co 1934) Part I

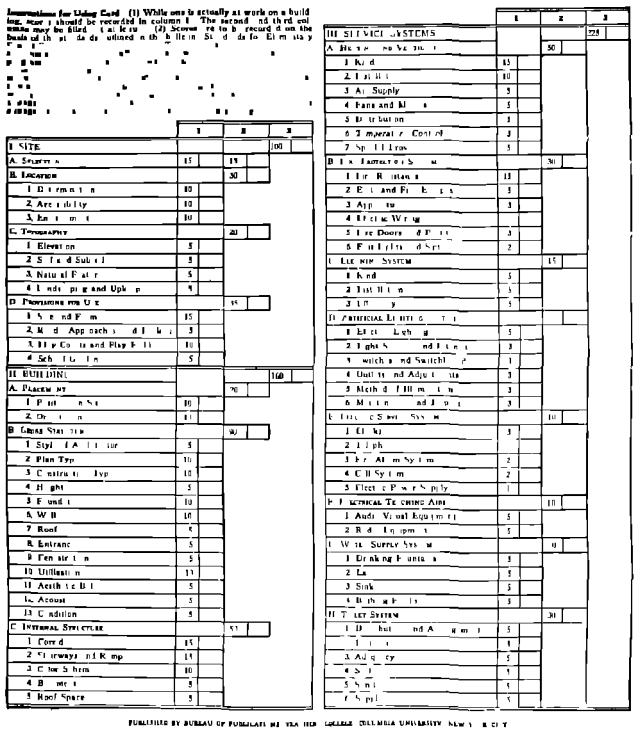
[49] L I Chism Evaluation of School Building Plans Appearing in Pamphlets of State Education Departments in *ibid*, pp 44 46

STRAYER-ENGELHARDT SCORE CARD FOR ELEMENTARY SCHOOL BUILDINGS

Revision of 1933

BY GEORGE D. STRAYER AND N. L. ENGELHARDT

Name of School _____ City _____ State _____ Date _____ Scorer _____



PUBLISHED BY BUREAU OF PUBLICATIONS, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, NEW YORK CITY

FRONT OF STRAYER-ENGELHARDT SCORE CARD FOR ELEMENTARY-SCHOOL BUILDINGS

B *Internal structure*

1 Corridors

a Corridors provide ready access to stairways, exits, and student service rooms 15

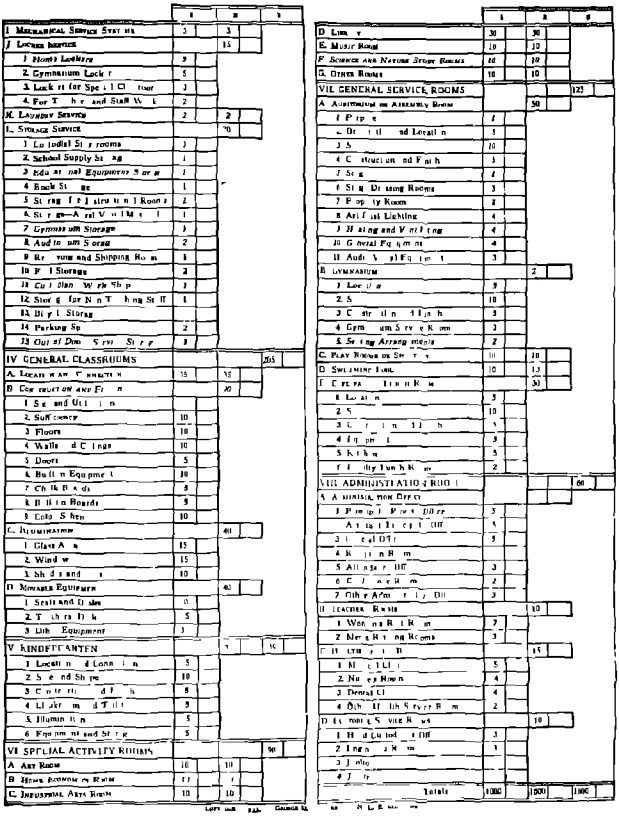
b Corridor, passages and stairwell contain no pockets or dead ends in which pupils might be trapped 9

2 Stairways

a All stairways permit passage from ground level to top story 15

b Buildings with two or more stories have at least two stairways sufficiently separated 14

Spaces under stairways free from storage closets 12



BACK OF STRAYER-ENGELHARDT SCORE CARD FOR ELEMENTARY SCHOOL BUILDINGS

3 Spaces, such as boiler rooms ventilation plants, and coal pits, located in basement 15

II *Service Systems*

A *Toilet systems*

1 Toilet rooms for boys and girls provided on all floors (*basement exempt*) 10

2 Toilet rooms for sexes at opposite ends of building 9

3 Toilet rooms conveniently placed with reference to stairways, corridors, and classrooms 10

4 *Following spaces provided with toilet conveniences*
- *a* Offices 6
- *b* Teachers rooms 9
- *c* Students dressing rooms 8
- *d* Health suite 1
- *e* Engineer's and custodian's quarters 1

B *Storage services*
1 Central school supply storage
- *a* Located near administration offices 7
- *b* Directly accessible to a receiving and shipping office 0

2 Custodian's workshop sufficiently large to meet demands for emergency and minor repairs 1

III *Classrooms or Recitation Rooms*

A *Location and connection*
1 Classrooms of related character grouped 13
2 Certain departmental units (history and English) given preferential positions near library 2
3 Room placement determined with special consideration to
- *a* Libraries and study halls 2
- *b* The fact that academic classrooms have the third largest percentage of use 8
- *c* The fact that all specialized rooms tend to have a low percentage of utilization 6

B *Windows afford light to left, or left and rear of pupils* 15

IV *General Service Rooms*

A *Auditorium*
1 Assembly room
- *a* Located on ground or first floor 10
- *b* Easily accessible to
  - (1) Classrooms 10
  - (2) Street approaches 9
- *c* Located so as to avoid outside noises such as those coming from cafeteria boiler room and shops 4

2 Stage dressing rooms
- *a* Separate dressing rooms for each sex 7
- *b* Toilet and lavatory facilities convenient 2

3 A property room at the rear or below the stage 1

B *Library*
1 Minimum needs recognized * 1

* As minimum needs may be taken the following

Main Building Capacity	*Reading Room*	*Work Room*	*Conference Room*	*Library Classroom*
300 500	1	(one	combined)	
500 700	1	1	1	
700 1 000	1	1	2	1
1 000 2 000	1	1	3	1

2 A library reading room
  a Centrally located and accessible to all parts of building 1
  b In direct communication with study halls 0

C *Study halls*
  1 Located convenient to stairways 7
  2 In close proximity to library 1
  3 A study hall for every 200 pupils 1

D *A cafeteria, planned to serve both school lunch purposes and community gatherings* 2

V *Administration Rooms*

A *Principal's private office*
  1 Principal's office located
    a In a suite of rooms 8
    b Preferably to immediate right of main entrance on ground floor 1
  2 Cloak room for office employees 1

B *Teachers' rooms*
  1 Only one teachers room provided 7
  2 Women's rest room provided 5
  3 Men's retiring rooms 3

C *Health service rooms*
  1 General considerations
    a Health suite adjacent to administration unit 2
    b These standards prevail
      (1) Accessibility to exits 4
      (2) Accessibility to toilets 2
      (3) Accessibility to corridors 1
  2 A nurse's room forming nucleus of the suite 1
  3 A waiting room 1
  4 Dressing rooms adjoining
    a Nurse's office 0
    b A medical clinic 0

A study of this report makes it clear that there is no agreement on satisfactory school building standards among the various state education departments A school building may be excellent in appearance, in economy of construction and cost of maintenance but at the same time be an educational misfit owing to faulty arrangement of rooms, improper location of necessary facilities, and other educational inadequacies It is evident that those who are concerned with supervision must concern themselves increasingly with the characteristics of building construction and arrangement of facilities that will make it possible to carry on an effective educational program

Determining the extent to which school facilities serve the community The term 'community school' is currently used to define a school that has two distinct emphases namely, (1) service to the entire community, not only to children of school age and (2) the discovery, development, and use of the resources of the community as part of the educational

facilities for carrying on the program of the school The community school seeks increasingly to democratize life in the school and outside its walls It cooperates actively with other social agencies and groups in improving community life The concern of the community school is the consideration not only of local matters but also of problems of the larger community state, the region, the nation, and the world The school serves also as a service center for youth and adult groups It has been easier to develop schools of this kind in rural areas than in urban centers because of the greater complexity of social organization in city life Important developments, however, are also taking place in this direction in large centers of population

The adequacy of the provisions for carrying on a well rounded community school program can perhaps be best judged by comparing these provisions with those that are regarded by experts as essential The following list can serve as a basis of analysis It is compiled from the volume by Engelhardt and Engelhardt *Planning the Community School,* in which separate chapters are devoted to the discussion of the details for each of the major items in the list "

PROVISIONS FOR PROGRAMS OF COMMUNITY SCHOOLS

1 A community school auditorium equipped for radio and motion picture programs
2 Indoor gymnasiums
3 Social recreation spaces
4 Cafeterias
5 Housing provisions for orchestra choral society and community musical groups
6 Workshops for arts and crafts with ample exhibit space
7 Home living laboratories including home demonstration practice home suite of laboratories
8 Community school library
9 Facilities for coordination, cooperation, and guidance including psychiatric and health service, medical and dental clinics vocational and educational guidance
10 Small group discussion, planning and study rooms including forum rooms
11 Facilities for vocational growth and adjustment, including retraining and rehabilitation
12 Community school grounds, recreation areas gardens farm plots

Either these facilities can be placed in separate buildings intended primarily for the use of adults, or adaptations can be made of existing facilities in schools, in the latter case, the same resources can be used by all individuals living in the community Few places have gone as far as the implications of the recommendations by Engelhardt and Engelhardt would extend the program In larger communities the establishment of

[10] Adapted from chapter headings in N L Engelhardt and N L Engelhardt Jr, *Planning the Community School* (New York American Book Company 1940)

schools designed for adults is likely to be the common practice, whereas in smaller localities the development is likely to be in the direction of a single integrated plant for the entire community. Whatever the trend may be, the possibilities are almost limitless. The extension of the program of the school and its enterprises not only helps to vitalize its activities but it also helps to *improve the quality of living in the community*.

Checking items that affect classroom comfort. There can be little doubt that the classroom environment has a definite influence both on child health and on the comfort with which the pupil participates in learning activities. The school should take steps to check environmental influences that may affect adversely the child's normal growth and development. Such items as eyestrain, improper seating, inadequate lighting, crowding, and extreme fluctuations of the temperature of the classroom obviously affect the comfort with which the child works.

The following list includes the important items related to comfort that should be noted in studying the conditions under which learning proceeds.

FACTORS INVOLVED IN CLASSROOM COMFORT

1. Conditions Causing Eyestrain and Hearing Difficulty
   - *a* Evidence of eyestrain and hearing difficulty
   - *b* Location of pupils with visual and auditory deficiencies
   - *c* Noise and disturbing conditions
2. Seating Provisions That Affect Posture
   - *a* Proper desk height
   - *b* Proper seat height
   - *c* Placement and slant of work surface
   - *d* Spacing
   - *e* Arrangement
   - *f* Surface for work
3. Illumination
   - *a* Adjustment to location of pupil in classroom
   - *b* Adjustment to characteristics of pupil
   - *c* Adjustment to task undertaken
   - *d* Intensity of light on working surfaces
   - *e* Supplementation of natural light by artificial light
   - *f* Adequacy of light for rooms used for different purpose
4. Glare and Excessive Light
   - *a* Direct from sun or artificial sources
   - *b* Reflected glare from surface, globe, etc.
5. Shades
   - *a* Quality
   - *b* Adjustability
6. Luminaries
   - *a* Type: direct, semi-direct, indirect
   - *b* Location, spacing, and arrangement
   - *c* Intensity of lighting in various parts of the room
   - *d* Distance from working surface

7 Windows
   a Cleanliness
   b Ratio to wall space (norm 20 25 per cent)
   c Location side rear
   d Continuity
8 Interior Decoration
   a Quality of paint
   b Color scheme
   c Reflection factor
9 Blackboards
   a Composition
   b Surface
   c Area
   d Placement and height
10 Arrangement of Furniture
11 Condition of Air
   a Humidity
   b Temperature
   c Movement of air
   d Ventilation
   e Smells dust smoke
12 Presentation and Display of Instructional Materials
   a Placement
   b Angle of vision
   c Clarity and size of print
   d Interferences with vision

In most instances there are no generally accepted standards by which to evaluate the items in the list Certain standards of illumination are recommended for different kinds of rooms which can serve as a guide in checking this item Thus fifteen foot candles are regarded as the desirable level of illumination for classrooms offices shops laboratories and gymnasiums, twenty five foot-candles are recommended for rooms where sewing and other fine detail work is done in auditoriums locker rooms and corridors a level of five foot-candles is sufficient In general the chief point to be borne in mind is that everything possible should be done to eliminate conditions that cause fatigue strain, and discomfort The most complete and systematic source of authentic information available about most of the items in the list is the monograph by M E Broom, C F Thompson, and H Gordon, *Improving the Classroom Environment*, published in 1943 by the El Paso Public Schools, Texas The volume can be secured at a small cost

It is necessary that the supervisor should be able to interpret his observations in the light of accepted standards Butler[51] made an attempt to compile a standard list of items by systematically examining authentic sources about the items, heating and ventilation, lighting, seating, and

[51] F A Butler Standard Items to Observe for the Improvement of Teaching and Classroom Management *Educational Method*, Vol 9 (June 1930) pp 517 528

housekeeping The list of items he finally compiled was chosen on the basis of agreement of experts in this field, whenever results of experimental study were unobtainable Butler then tested the items for objectivity by measuring the degree of agreement of two observers of the same class, and reliability by finding the agreement of the results of a first and second visit to the same teacher by one observer The following set of items for "lighting" is one part of his complete list The explanations at the foot of the chart explain how validity, objectivity, and reliability were measured

The other groups of items are similar in nature The complete checklists given in the references on page 486 will be found to be very helpful in studying physical conditions in any classroom

STANDARD ITEMS TO OBSERVE FOR THE IMPROVEMENT OF CLASSROOM MANAGEMENT

Physical Conditions	*Validity* *	*Objectivity* †	*Reliability* ‡
II Lighting			
1 The best light is unilateral and from the left Additional light from the rear is permissible but lighting from the opposite sides or from the front is not permissible In side and rear lighting two thirds or more of the light should come from the side The nearest window toward the front should be at least six feet from the front wall	A	99	Constant
2 If lighted from one side the distance to the opposite side of the room from the window should not be more than 2 5 times the window height (distance from floor to highest glass of) If additional light is supplied from the rear the distance of the opposite side of the room from the side windows should not be more than 2 5 times the window height	B	99	Constant
3 *The glass area of the windows should not* be less than 10 per cent of the floor area (20 per cent or more is considered ideal)	B	98	Constant
4 *In artificial lighting* a standard room 21 x 32 should have at least four fixtures (ideal is six)	B	100	Constant
5 Lamps should be about the line of vision to blackboard (top of fixture 6' from the floor is recommended for a 12 ft ceiling	B	98	Constant
6			
7 *In both artificial and natural lighting* the intensity of the illumination on the desk tops should be not less than 5 foot candles Ten foot candles are recommended for ordinary classroom work and 12 to 15 for sewing drafting and other work of a fine nature (Measure with a foot candle meter)	A	No evidence	No evidence
8 White light cream cream or ivory are good colors for the ceiling (Ideal is a color with a coefficient of reflection of 70)	A	82	Constant
9			
10 *Seating equipment* tables and all working surfaces and interior woodwork should have a dull finish (to avoid glare)	A	69	Constant
11 15			

* A high B average C low

† Per cent of agreement of two observers visiting the same teachers (120 paired visits of sixty different teachers)

‡ Per cent of agreement between the first and second visits to the same teachers by one observer (sixty double visits of sixty different teachers)

SECTION 3

METHODS OF STUDYING THE COMMUNITY

Importance of considering environmental conditions outside the school It is becoming increasingly evident that the school must give consideration to the effects on children of environmental factors outside the school A striking example of these relations is reported by Burt[52] who compared 197 delinquent boys and girls with 400 non-delinquents of the same age, the same social class living on the same streets, and attending the same school The table on page 491 summarizes the comparative data for the two groups for hereditary, environmental, physical, and psychological conditions There is a very striking difference in the results for these classes of children The frequency ratios are largest for psychological and environmental conditions In the latter group are included influences both within and without the home Though these differences are closely related to problems of delinquency they also have a bearing on other aspects of personality and learning In some respects the school must seek to counteract the unwholesome effects of undesirable community contacts It is clear that the supervisor must therefore take into consideration the home and community environment in planning the program of developmental and remedial teaching Many detrimental factors may be overcome

Surveying the community The intelligent planning of an educational program depends on the availability of information about local conditions and needs The importance of this fact has led to the undertaking of surveys of existing social, political industrial, economic and moral conditions in many communities On the basis of the information thus secured the supervisory staff has been able to make effective adaptations of the total instructional program to meet local needs Continuing surveys are made in some communities

The community-survey approach has also been utilized by many individual schools[53] and teachers to study the local environment to locate illustrative materials and conditions that can be used to relate the work of the pupils more closely to their experiences in life outside the schools *and to make the instruction more vital and meaningful* Programs of excursions to local institutions and places of interest can also be effectively planned as the basis of such a survey

The steps in a community survey are as follows

1 The awareness of some problem or need, social economic political religious educational

[52] Cyril Burt *The Young Delinquent* (New York D Appleton Century Company Inc 1925) p 51

[53] John S Thomas 'Studying the Community" in *The Principal and Administration, Ninth Yearbook* of the Department of Elementary School Principals (Washington D C National Education Association 1930) pp 605 612

RELATION BETWEEN JUVENILE DELINQUENCY AND FOUR SETS OF CONDITIONS

Conditions	Percentage of cases		Frequency ratio	Coefficient of association
	Delinquent	Non-delinquent		
1	2	3	4 *	5
I Hereditary Conditions				
A Physical	10 9	22 7	1 63	17
B Intellectual	25 1	7 7	1 40	34
C Temperamental (with pathological symptoms)	21 1	10 7	2 28	24
D Temperamental (with moral symptoms)	51 3	17 5	3 10	41
Average			2 58	29
II Environmental conditions				
A Within the home				
1 Poverty	52 8	38 2	1 38	15
2 Defective family relationships	57 9	25 7	2 25	33
3 Defective discipline	60 9	11 5	5 30	45
4 Vicious home	25 9	6 2	4 18	19
B Outside the home	15 2	20 2	2 21	29
Average			3 07	34
III Physical Conditions				
A Developmental	21 3	5 5	3 87	17
B Pathological	60 0	51 7	1 16	15
Average			2 16	26
IV Psychological Conditions				
A Intellectual	68 5	27 5 †	2 17	41
B Emotional				
1 Inborn				
a Specific instincts	59 1	1 0	1 05	58
b General emotionality	38 2	11 7	1 12	16
2 Acquired				
a Interests	15 7	13 2	9 16	40
b Complexes	61 5	20 5	3 15	45
Average			3 03	15

* Figures in Column 4 are obtained by dividing the figures in Column 2 by the figures in Column 3 The frequency of each item among the non delinquents is taken throughout to be unity

† Cases of supernormal ability not included

2 A fact finding study of the situation and an analysis of community agencies already operative and their functions

3 The development as a basis of discussion of a proposed program of appropriate action and *coordination to fit the local situation*

4 The adoption and institution of the proposed program as approved by the community

Elements to be included in a community survey The elements of a community survey that will furnish a sound basis for knowing the com

munity and for an understanding of the problems of the school are given in the outline that follows [54]

1 Size of the Community
   a Population trends (based on census data)
   b Trade area banking facilities size of industry and business
   c Attitudes toward size
   d Community and school problems growing out of size of community
2 Location and Physical Setting
   a Relation to climate, soil, food production, center of population
   b Contiguity to natural resources national monuments, parks etc
   c Problems growing out of location and setting
3 History
   a Founders and reasons for their coming to the locality
   b Important dates and historical events
   c Historical personalities—past and present
   d Historic spots accessible for excursions
   e Sources of community pride
4 The People
   a Age groups sex distribution marital status density of population
   b Races and nationalities
   c Distribution of wealth
   d Presence of social classes and social distinctions
   e Organizations—religious, fraternal social
   f Cultural resources of nationality groups
   g Delinquency crime vice mental health
5 Occupations
   a Production distribution transportation communication
   b Scientific centers educational agencies
   c Changes in occupations transiency of workers strikes
   d Organizations of workers and other occupational groups
   e Incomes wages welfare working conditions
   f Child labor
   g Facilities for guidance training placement rehabilitation
6 Community Organization and Government
   a Administrative officers and taxation
   b Judicial bodies children's court
   c Protective and developmental agencies
   d Elections and politics honesty in government
   e Relations of school and groups interested in improving government
7 Health
   a Sources of water supply sanitation sewage disposal
   b Birth and death rates incidence of illness and sickness
   c Hospitals medical care provisions for care of aged and indigent
   d Agencies concerned with health problems and their relations
   e Nutrition deficiencies unusual local problems and conditions
   f School and community health program
8 Recreation and Cultural Opportunities
   a The common recreations and their general quality and level

[54] Adapted from Know Your Community, Leaflet No 57 of the Know Your School Series (Washington D C United States Office of Education 1941) Consult this bulletin for details

- *b* Recreational and cultural facilities
- *c* The fine arts in the life of the community
- *d* Reading habits and sources of reading materials
- *e* Attendance at motion pictures, use of radio
- *f* Participation in sports and active recreations
- *g* Evidence of unwholesome use of leisure time
- *h* Contributions of the school to recreation and culture

9 Housing
- *a* Quality, appearance, age, size of homes, ownership
- *b* Evidences of crowding and congestion
- *c* Community planning agencies
- *d* Constructive interest of community groups in housing problems
- *e* Adequacy of school plant and facilities

10 Welfare Agencies
- *a* Organizations—public and private
- *b* Sources and adequacy of funds
- *c* Number and location of welfare cases
- *d* Provisions for the care of the handicapped
- *e* Welfare activities of the school

The type of information desired will determine the technique to be used. The survey can most profitably be undertaken as a cooperative community enterprise in which the staff, the pupils, and other interested members of the community participate. The pattern of community life reflects the concern of all of its members for their common and mutual welfare.

Techniques for studying the community. There are many methods of studying special aspects of life in the community. Some of these procedures, such as the social survey, are highly technical and require the services of an expert. The most useful techniques that the teacher and interested individuals can employ to gather information about the community are the following:

1. *The group interview*—a method of studying a situation in which the interviewer seeks to draw information or expressions of attitude from an assembled group of interested people rather than through conversations with individual persons.
2. *The personal interview*—a method of specialized directed conversation in which the interviewer guides the responses of the interviewee in a particular premeditated direction.
3. *The questionnaire*—consisting of a series of questions prepared to be submitted to a number of individuals to obtain mass data of a rather elementary type about some condition or situation.
4. *Participant observation*—a method requiring the observer to take up residence among a group and to share its experiences. The method involves excursions, visits, field work, active participation in work and play activities, and similar procedures.
5. *The ecological method*—that is, the study of "space relationships" of the conditions of community life, usually involving the preparation of a

[1] An excellent example of plan for a community survey is given in E. A. Wesley, *Teaching the Social Studies* (Boston: D. C. Heath and Company, 1937), pp. 436-440.

social base map, showing the location of various elements of the environment, such as areas of crime and poverty, recreation facilities, poor housing, and so forth

6 *The use of documentary sources*—the census newspapers school records records of social agencies, reports of research by other agencies, books, museums and so forth

7 *Rating of elements of the community*—various devices which can be used to get data about the social and economic status of the homes of the pupils One such plan, the Sims Score Card for Socio Economic Status,[56] requires the pupil to supply various kinds of information about his home that gives a very reliable index of its social status In this way it is possible to secure information for a large number of homes in a relatively short time Chapin's Social Status Scale[57] requires the actual visit to the home by some competent social worker This procedure is time consuming but very essential in dealing with problem cases A portion of Chapin's scale is given below

A Portion of the Chapin Score Card for Measuring Socio Economic Status

Part I Material Equipment and Cultural Expression of the Living Room of the Home

1	Floor softwood (6) hardwood (10)	____	8	Piano bench (4)	____
			9	Desk personal social (8)	_ _
2	Large rug (8)	_ _	10	Bookcases with books (8 each)	
3	Windows with drapes each window (2)		11	Sewing machine (−2)	
4	Fireplace with 3 or more utensils (8)	_ _	12	Couch pillows (2 each)	_
			13	Alarm clocks (−2)	
5	Artificial light electric (8)	_ ___	14	Periodicals (8 each)	____
	kerosene (−2)	_	15	Newspapers (8 each)	
6	Library table (8)	____	16	Telephone (8)	
7	Armchairs (8 each)	____	17	Radio (8)	_ _

Score on Part I

Part II Condition of Articles in Living Room

To provide some objective rating of qualitative attributes of the living room such as esthetic atmosphere or general impression the following additional items may be noted The visitor should check the words that seem to describe the situation Some of the weights are of minus sign and so operate as penalties to reduce the total score of the home

18 Cleanliness of room and furnishings
- *a* Spotted or stained (−4) ____
- *b* Dusty (−2) _
- *c* Spotless and dustless (+2) ___

19 Orderliness of room and furnishings
- *a* Articles strewn about in disorder (−2) ___
- *b* Articles in place or in usable order (+2) _ ___

20 Condition of repair of articles and furnishings
- *a* Broken, scratched, frayed, ripped, or torn (−4) ____
- *b* Articles or furnishings patched up (−2) _ _ _
- *c* Articles or furnishings in good repair and well kept (+2) _ _ _

[56] Bloomington Ill, Public School Publishing Co 1927
[57] Minneapolis Minn University of Minnesota, 1926

21 Record your general impression of good taste
- *a* Bizarre clashing, inharmonious, or offensive (−4) ____
- *b* Drab, monotonous neutral inoffensive (−2) ____
- *c* Attractive in a positive way, harmonious, quiet and restful (+2) ____

Score on Part II ____ Total Score,* Part I and II ____

* With penalties deducted

The value of the community survey procedure A well-organized and carefully conducted community survey leads to the gathering of a body of information through the use of systematic procedures about some significant aspect of life in the community The consideration of these data establishes a basis for intelligent planning of the steps that are necessary to improve conditions These facts are also of undoubted value in the selection of curriculum content and serve as a means of vitalizing the work in the classroom

Participation by the pupils in a community survey properly adjusted to their level of maturity is a valuable educative experience Not only do the pupils have worthwhile practice in the use of systematic procedures for gathering the necessary data and organizing it for purposes of analysis and evaluation, they also participate in the cooperative group planning and action required to conduct a survey They gain an insight into the social process and see at first hand some of its weaknesses According to Olsen the survey technique [58]

1 Fosters comprehensive understanding of community structure and processes in their everyday operation interaction and complexity
2 Stimulates depth of insight into vital community problems and trends as these have been influenced by past conditions, present developments and future prospects
3 Discloses problems which should be met not because teacher or textbook loftily says so but because the evidence itself inescapably reveals the need
4 Suggests possibilities of student participation in the ongoing processes of the community Such constructive participation cooperatively carried on provides fine personal satisfactions as well as essential training in democratic citizenship
5 Develops awareness of human interdependence and of the practical necessity for general civic cooperation in carrying on successful individual and group living
6 Promotes superior citizenship by providing extended experience in the making of critical judgments concerning existing conditions Students learn through personal actions to base conclusions and recommendations upon factual data carefully assembled objectively interpreted, and meticulously verified

DISCUSSION QUESTIONS FOR GENERAL INTRODUCTION

1 Summarize quickly from experience or general reading a few points showing
- *a* How living in slum areas affects the development of pupils as learners and as persons

[58] From *School and Community*, by E G Olsen Copyright, 1945 by Prentice Hall Inc Reprinted by permission of the publishers

b How financial support affects materials of instruction
c That instructional supplies should or should not be supplied to pupils
d The factors to be considered in selecting school building sites
e That teachers should or should not participate in community surveys

Oral Reports for Individuals or Small Committees

1 List several of the most important material and social elements in your community that you think affect pupil learning definitely for better or for worse
2 Outline briefly and make critical analysis of the methods used in your system for the selection of instructional materials
3 Do the same for methods used to supply materials adapted to the range of ability found in all class groups
4 Describe briefly any project in which you or a group attempted to make systematic use of community resources (If inexperienced with this select any typical school survey and critically evaluate what was done)
5 Describe briefly and critically evaluate any project in which you may have participated aimed at conducting an adequate community survey (If inexperienced find the account of such a survey in the library and proceed as above)
6 Describe and evaluate the use made of motion pictures and the radio in your school What sources or catalogues of these aids are supplied to the teachers?

Written Reports for Individuals or Small Committees

1 Develop a blank for gathering information about materials in reading (or language arts or social studies etc.) similar to that for arithmetic on page 449
2 Apply to some school or individual classroom the criteria for use of materials outlined on pages 451-452 Would you suggest any changes in these criteria?
3 Consult the original study by Zirbes and prepare levels of reading materials for lower grade levels similar to those given on page 453 for the middle grades
4 Make a study of the adequacy of available materials in some school in any field, arithmetic social studies language geography etc Try to suggest at least three levels of materials for the field chosen (Schools using a unified in contrast to a subject organization will still be using materials recognizable by the above classifications) Point out limitations
5 Select a score card for rating texts (several are available in the library) and apply to two or more texts Evaluate the score card as well as reporting findings on the texts
6 Prepare a check-list for a text in a field where instruments are lacking
7 Make a detailed and highly critical analysis of a set of workbooks (This is an important exercise in view of the wide use of extremely poor materials)
8 Make a list of the kinds of objective information you could secure about the content of a textbook in arithmetic reading language history etc
9 Determine the level of reading difficulty for some book through application of one of the formulas referred to in the text or found in the library
10 Make an inventory of the visual aids mechanical equipment and other instructional materials available in some room or building

11 Check your school library against the American Library Association's starred list of titles for children. Several other lists issued by school systems and publishers are also available. (A recent survey of this type revealed differences between schools some of which had 6 per cent of the books and others 60 per cent.)

12 Make a critical analysis of radio and motion picture programs offered in your community. What can be done by the school to improve the quality of programs given commercially? What is now being done by interested groups of producers and of school workers to improve the quality and to increase the number of educational films available?

13 Describe and suggest improvements (if necessary) in the methods used by your system in housing and distributing all types of instructional materials.

14 Apply a score card to any nearby school building.

15 Describe a plan whereby your school staff might initiate and carry on a community survey. (Make a miniature survey if possible.)

16 Describe a plan whereby your school staff might cooperate in the selection and evaluation of instructional materials.

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Engelhardt, N L, Jr, *Standards for Junior High School Buildings* (New York Bureau of Publications Teachers College Columbia University 1932)

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Epler Stephen E The Teacher the School the Community," *Bulletin of the Commission on Teacher Education* (Washington D C American Council on Education 1941)

Probably the best single bibliography available Carefully annotated Contains also a list of organizations and agencies concerned with community problems

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Everett S editor *The Community School* Report of Committee on Society for Curriculum Study (New York D Appleton-Century Company, Inc 1938)

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Herzberg, Max J editor *Radio and English Teaching* (New York D Appleton Century Company Inc 1941)

Holy T C and Arnold W E *Standards for the Evaluation of School Buildings* (Columbus Ohio Ohio State University 1946)

Johnson B L *Vitalizing a College Library* (Chicago American Library Association, 1939)

Know Your Community' U S Office of Education Pamphlet No 57 (Washington D C 1941)

Particularly good in that it gives a number of leading questions under each heading to direct teachers to significant items

Matter J B *School and Community* (New York McGraw Hill Book Company Inc 1938)

McKeon, H C, and Roberts A B *Audio Visual Aids to Instruction* (New York McGraw Hill Book Company, Inc 1940)

Mitchell, Morris R and others Youth Has a Part to Play Pamphlet No 6 of the Progressive Education Association Service Center 1942 also in February 1942 issue of *Progressive Education*

Contains the list of 170 illustrations of major contributory learning experiences

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———, *Thirtieth Yearbook The Textbook in Education* (Bloomington Ill Public School Publishing Co 1931), Part II

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Part III

IMPROVING THE SETTING FOR LEARNING

XI

Improving the Interests Attitudes, and Work Habits of the Pupil

Adapting instruction to individual differences The problem of aiding individuals to develop and improve is complicated by the very great range of individual differences The expression 'individualization of instruction' appears frequently in discussions of educational procedures To some, individualization means that the individual works alone on some task not as a member of a group This point of view is a gross misconception There is no inherent opposition between working as a member of a group and at the same time carrying on activities adapted to the needs interests and abilities of the individual The teacher who wishes to adjust the learning activity to differences among individuals so conducts the work of the pupils that each of them can make his own contribution to a group interest If the class is allowed to participate in the selection and planning of the activities to be undertaken it is more likely that strictly individual capacities and talents will be developed than if an uninformed teacher unaware of the differences among individuals in a class makes arbitrary uniform assignments of subject matter to be learned by the pupils Effective guidance of the learning activity depends on a knowledge by the teacher of the characteristics and background of each pupil To overcome learning difficulties that arise in even the most well conducted instruction the teacher must know how to utilize diagnostic procedures to locate the specific weakness to establish the causes of the difficulty and then to undertake the kinds of corrective and remedial measures likely to bring about an improvement Clearly the 'lock step system' that characterized the schools of the past is outmoded

The significance of individual and trait differences Any program of instruction must take into consideration the important facts about individual and trait differences that have been revealed by the studies set forth in earlier chapters of this volume There exists in any realm of activity a wide range in the endowments of individuals The distribution of aptitude approximates the normal curve of distribution This is true of achievement in reading athletic skill general intelligence, and artistic

talent, as well as all other native and acquired traits Individuals cannot readily be classified into specific types, however, since the various levels merge gradually and are not sharply differentiated

The evidence is clear that the degree to which the individual possesses different traits also varies[1] The wider the range of acquired traits appraised the greater appears to be the range of talent Graphs of the results of diagnostic tests in reading usually are not symmetrical in form Their unevenness shows that in many cases the various skills have not all been developed to the same level The profile given on this page is an illustration of the unevenness of the development of various traits in English for a student at the college level The chart shows unusual

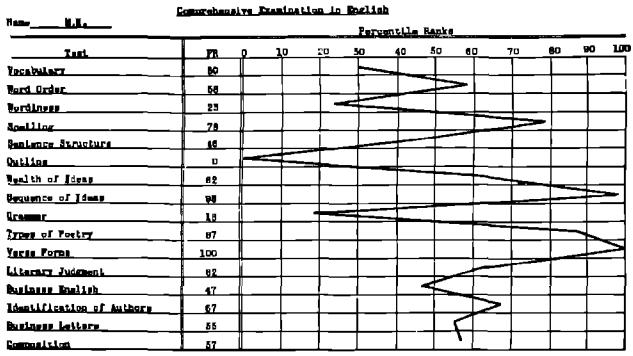

CHART SHOWING UNEVEN DEVELOPMENT OF VARIOUS TRAITS IN ENGLISH AT THE COLLEGE LEVEL

Alvin C Eurich *Individual Diagnosis,* Studies in College Examinations (Minneapolis Minn University of Minnesota Press 1934) p 85

strength on some points and serious weakness on others Charts for other students differed markedly from this one indicating the necessity of recognizing individual differences in planning remedial instruction Brown - has demonstrated the fact that 'dull boys and bright boys show an equal amount of unevenness in all abilities' and that the same type of class organization and treatment is required for both groups

The data in the chart also show the importance of evaluating the wide range of skills and abilities of the various areas of learning by comprehensive testing programs so that any deficiency can be located If the student whose profile appears on this page had been given only the test in

[1] C Hull, *Aptitude Testing* (Yonkers on Hudson, N Y, World Book Company, 1928), pp 21 50

[2] A W Brown *Unevenness of the Abilities of Dull and of Bright Children,* Contributions to Education, No 220 (New York Bureau of Publications, Teachers College, Columbia University 1926), p 109

sequence of ideas he would have rated high in English His weakness in outlining and grammar would not have been detected until much later, if at all

Children do not all profit equally from the same experience because of the differences in their mental levels, in their readiness for the task, in the effectiveness of their study habits, in their background of experiences, and in the effort they put forth They do not respond to the given incentive in the same way Children also differ in the rates at which they are maturing physically mentally, and emotionally They differ in the rates at which they learn the basic skills involved in spelling, writing, reading, and computing These differences are caused in part by differences which appear to be fixed by heredity in original inborn nature and in part to differences in environmental influences to which they have been exposed

The individual should be continuously evaluated in terms of his own potentialities developmental progress, and experiential background Because the educative process continuously modifies the total picture, including the needs, interests, attitudes, and potentialities of the individual, evaluation must be continuous The need is for a flexible educational program conducted by a staff which proceeds on a tentative experimental basis to adapt instruction to the wide range of individual differences among the pupils At the same time consideration must be given to the problem of developing the common attitudes interests, and knowledges regarded as basic in life in a democratic society

SECTION 2

THE GUIDANCE FUNCTION OF THE SCHOOL

Education as guidance Instruction may be regarded as being both developmental and corrective On the basis of dependable systematized information about the individual learner—his needs, abilities, interests, traits, and capacities, and his experiential background—the school through an efficient program of guidance attempts to help him to set up goals that are meaningful and significant to him The school arranges a variety of functional learning experiences that if effective, will lead to the well rounded growth and development of all wholesome aspects of his personality The chief problem involved is to provide fully and efficiently for individual differences among learners The continuous study of the pupil by the teacher by carefully selected means of evaluation and also self appraisal by the individual himself are both important elements of a well conceived guidance program Whenever there is any realistic evidence that growth and development are not proceeding satisfactorily, it becomes necessary to identify the nature and causes of the deficiency or shortcoming by appropriate diagnostic procedures, so that the necessary corrective and remedial measures can be taken as soon as

possible Thus evaluation, guidance, and diagnosis are intimately intertwined parts of a continuing unitary process of guiding learning

The guidance function of the school requires the creation, with that part of the environment under its control, of conditions most likely to be conducive to wholesome growth, and in other areas the securing of the cooperation of the pupils and all other members of the social group in creating an environment that stimulates and sustains the growth of all The school should help the individual to set up standards of attainment and behavior by which he can at all times and in all places evaluate his conduct Dewey points out that "the planning must be flexible to permit free play for individuality of experience yet firm enough to give direction to continuous development of power" [3]

In recent years considerable attention has been given to the mental hygiene aspects of living and to the need of directing the development of the emotional aspect of personality This problem has been presented by Prescott as follows [4]

At the risk of being premature because of inadequate knowledge the following formulation of the proper rôle of education in influencing the development of affective maturity is presented That rôle seems to be

1 To identify the individual children whose patterns of emotional behavior do not fall within the accepted range and to undertake reeducation
2 To provide all children with experiences that will stimulate the progressive development of patterns of emotional behavior recognized as mature in the light of the basic needs of the individual and in the light of the cultural patterns in which these needs must be met
3 To provide the children with esthetic experiences and training in esthetic expression that will develop the patterns that are useful to them in maintaining morale, for relieving tensions for identifying themselves with a cultural group and in general for sensitizing them to beauty
4 To provide children with experiences that offer them the chance for the development of a "mature" value sense and of loyalties so genuinely associated with value for them as to be characterized accurately as affective loyalties
5 To provide children with enough opportunity for the active practice of behavior growing out of these value concepts to establish in them a technique or habit of more or less continuously reevaluating their loyalties in the light of experience

The fundamentals of an effective educational program The relation of mental hygiene to instruction and learning has only recently been recognized The integrated attack on the solutions of these problems by school and community has barely been begun

The phenomena of human personality are undoubtedly the most complex and elusive of all of the characteristics of the individual with which

[3] John Dewey *Experience and Education* (New York The Macmillan Company 1938) p 65
[4] Daniel Prescott, chairman *Emotion and the Educative Process* (Washington D C American Council on Education 1938) pp 108 109

the school has to deal The solutions of the problems involve procedures that are subtle and devious and that undoubtedly vary from individual to individual They pervade all important aspects of the life of the school and community that affect the nature, direction, and quality of individual growth and development The changes of a political, social, and economic kind that must take place if the principles of social justice are to prevail in the life of the community are too comprehensive and complicated to be presented in this volume, but the need of certain basic changes is fully recognized by the authors In so far as the school itself is concerned the steps to be taken to insure the provision of an effective educational program can be stated concisely as follows

1 The school should provide a curriculum consisting of varied educative experiences adapted to the age ability needs, and interests of the individual with the aim of helping him to live a satisfying productive life
2 There should be a broad rounded instructional program conducted by competent well adjusted individuals and organized and administered according to modern principles of education
3 There should be an attractive physical plant and a wholesome environment containing concrete instructional materials, aids and equipment that will stimulate learning of a socially desirable type
4 There should be a well-conceived guidance program with an adequate testing and record system which assists pupils maladjusted in varying degrees educationally physically socially, and emotionally to adapt themselves to normal school and community life

In this chapter we shall consider briefly certain broad underlying principles related to the first three of these steps The means of improving instruction, curriculum, and materials will be discussed fully in succeeding chapters In this chapter we shall discuss the direct steps the school can take to improve the growth and development of all pupils, primarily those whose progress is not satisfactory

The curriculum of the modern school The curriculum may be regarded as the succession of educative experiences for which the school is responsible The school is also concerned with the nature and quality of life outside the school and with the steps that can be taken by the social group to improve living conditions so as to make life happy and satisfying for all This is inevitable because the school wishes to do all in its power to insure the optimum growth of all members of the social group

In planning the curriculum, the school must take into account the stage of growth of each individual in so far as his physical and mental development, his interests, purposes, and experiential background are concerned The objectives of education relate to all aspects of the personality of the learner, including his physical, mental, social, and emotional development and his educational achievements To insure well-rounded growth the school should provide a comprehensive balanced program of experiences including both in-school and out-of school activities The school should recognize the need of helping the individual and the community to

develop an active wholesome program of recreation and a plan for using leisure time worthily

The curriculum should provide for the direct participation of youth in the management and control of their activities in school and elsewhere, so that they will learn through use the ways of democracy They should consider their own problems and also problems and issues of persistent long-time social concern so that they may understand social life and develop a desire to participate constructively and cooperatively in the solution of the problems of life

The curriculum should allow for a large amount of creative activity All experience may be made creative The solution of problems provides a most valuable opportunity for creative action This is also true of construction activities, appreciative experiences, sports, and even of those procedures concerned with the acquisition of basic skills and techniques of work and study Special provision should be made for opportunities for the learner to explore and cultivate his interests and aptitudes through a wide variety of co-curricular activities In up to date schools these experiences have become an integral part of the life of the school and are no longer regarded as "extra-curricular" in nature It is recognized that there is need of guidance in creative expression, especially for those who display special skills and interests

Provision should also be made for work experience and work interests There should be opportunity for the exploration of vocational aptitudes at all times especially as the student approaches maturity To develop desirable attitudes toward work the learner should be led to see that work experience should be evaluated in terms of what it produces its social value, and its appeal to the worker Society faces the problem of providing work opportunities for all members of the social group, an exceedingly complex task involving major economic adjustments Probably the most valuable contribution the school can make is to carry on a continuous study of the local situation and to inform the community as to the situation and the trends to be expected in the future A cooperative community, even state or national, attack on the problem is fundamental The school should make certain that it has as effective a program of vocational guidance, training, and placement as is possible, extending beyond the limits of the high school and including all members of the community who desire assistance and training

The necessity of providing for the acquisition of special skills and abilities by which all intellectual activity is carried on, including language and the use of quantitative procedures, must be recognized The need of a control over these techniques is constantly revealed to the learner by the experiences he has in life, and this awareness of their social significance is a valuable means of motivating the efforts required to master them In traditional schools there are usually set aside special periods for "drill," thus isolating the practice from the situations in

which the need for the skill arises In many cases little if any effort is made to lead the learner to see the social value of the techniques and the contribution they make to the more efficient management of the affairs of life Drill thus often becomes routinized repetition of material that has little meaning to the learner In the more modern school every effort is being made to integrate as closely as possible the use and practice of these skills and abilities, emphasis being placed on their ultimate improvement and mastery through use in meaningful situations The need of direct intensive practice to develop skill and precision in essential skills can best be provided for on an individualized basis and through the use of instructional materials that make possible a self-directed attack by the learner, independently of the teacher in many cases This plan requires the careful continuous study of the needs and progress of the individual and the use of appropriate instructional procedures when difficulties arise as learning proceeds

Principles of differentiation applied to the curriculum Because of the wide range of differences in the ability of individuals it is necessary to adapt the curriculum to the talents and limitations of each individual An excellent statement of principles that should underlie this differentiation is the following [5]

1 To enable each pupil simultaneously to satisfy the needs of himself and of others it is necessary to explore the capacities, interests and previous accomplishments of every pupil
2 Both in content and in method the range provided to meet the needs of all pupils must be extended to meet the great range of human talent which the schools now care for It is the duty of the school to furnish such an environment as will bring about the optimum development of each individual
3 In content and in method the fact that variation is continuous must be recognized and in so far as is possible provided for
4 Different rates of progress and different lines of study are both required to fit differences in capacity and to harmonize with the different vocational recreational social civic and other duties which will characterize adult life
5 In the general appraisal of the work of individual pupils there should be greater emphasis given to the development of individual talents of pupils—less averaging down and more cultivation given to whatever even slightly useful traits a pupil may have in the hope that these may be developed into a contribution to society and to the individual himself
6 There is need for greater recognition of the less academic activities of school

There is little need of discussing in detail these principles They express in concrete form the major ideas that underlie the preceding discussion

Adapting instruction to individual differences Because of the need of providing for the individual differences among the pupils of a grade or

[5] *Five Unifying Factors in American Education Ninth Yearbook* of the Department of Superintendence (Washington D C National Education Association 1931), pp 109 111

SCORES ON STANFORD ACHIEVEMENT TEST

For six pupils with educational ages which do not vary more than two months Expressed in specific subject ages

Pupil	Boy or Girl	Age		Tests		Total Reading	Tests								Total Arithmetic	Educational Age
		Years	Months	1 Par Mean	2 Word Mean		3 Spell	4 Lang Usage	5 Lit	6 Hist and Civ	7 Geog	8 Phys and Hyg	9 Arith Reas	10 Arith Comp		
A	B	14	2	12 8	13 9	13 3	12	12 7	9 10	12 11	11 8	12 8	12 3	11 0	11 7	12
B	B	13	9	10 10	11 5	11 2	11 8	13 3	11 6	11 9	10 10	12 11	12 3	12 7	12 6	11 10
C	B	14	1	11 10	13 9	12 8	14 10	16 5	10 6	12 7	12 2	15	13 5	12 7	12 11	11 11
D	G	13	10	12 2	12 6	12 3	12 7	12 3	10 6	12 10	11 11	11 5	12 3	11 3	11 8	11 11
E	B	14	7	10 10	12	11 5	12 6	12 8	11 6	11 8	11 1	11 1	12 3	13 3	12 8	11 10
F	B	15	11	10 9	10 9	10 9	11 9	9 10	11 6	13 1	12 7	12 6	13 5	13 7	13 7	11 10
Range in months			12	23	96	42	26	79	20	15	21	17	14	31	21	2

class, the instructional program should be highly flexible The contents of the curriculum should be adapted to the ability and level of development of the group of pupils in the class The program for groups of superior children should be enriched Special adjustments should be made to explore the talents of gifted children Activities should be organized to promote the discovery of aptitudes, interests, and appreciations of individuals A systematic program of educational and vocational guidance is an important element in differentiated instruction

Some of the problems of effective guidance arise out of the wide variations in the ability of pupils in the same group The table on page 510 gives the scores on the Stanford Achievement Test of six pupils of approximately the same educational age and in five cases of about the same chronological age

When educational ages do not vary more than two months, however there is a wide variation in their subject ages The range is from fourteen months in arithmetic reasoning to seventy-nine months in language usage An examination of the scores for each pupil shows that the nature of their profiles varies also Pupil D has a consistently average rating Pupil C has an extremely variable rating the range being from 10-6 in literature to 16-5 in language usage It is obvious that these pupils present greatly different problems to the teacher They are typical individuals and do not represent unusual cases Effective adaptation of instruction to these differences presents serious difficulties Obviously they are not a homogeneous group

The list below gives a helpful analysis of the wide variety of instructional procedures that are used in our schools to adapt instruction to individual differences

1 The use of experience units which provide for a wide variety of activities on different levels of difficulty
   a Problem solving research and experimentation
   b Construction activities, resulting in intellectual or material products
   c Appreciation experiences enjoyed by the individual
   d Creative activities resulting in original thinking acting and producing
   e Excursions field trips and participation in community enterprises
   f Opportunities for learning through use and direct experience
2 Grouping of pupils according to their needs, interests, and level of development
   a Classification into groups of similar social maturity and intellectual status
   b Promotion at irregular intervals
   c Program planned in terms of future needs of individual
   d Exploratory courses
   e Classes for gifted children
   f Special provisions for talented children to insure stimulating experiences
   g Rich program of co curricular activities
   h Adapting program of work to level of pupil ability

3 Differentiation of work in classes by such means as
   a Readiness programs adjusted to needs of individuals and groups
   b Differentiated assignments
   c Differentiated standards to be achieved
   d Differences in scope of course requirements
   e Differences in time allowed for completing work
   f Supplementary assignments
   g Special assignments for more able pupils or those with special interests
   h Use of books and materials of several levels of difficulty
   Use of workbooks
4 Laboratory methods such as
   a Individualized instructional materials to develop basic skills such as those used in the Winnetka plan
   b Dalton plan of assignments of different levels of difficulty and comprehensiveness
   c Morrison plan of guide sheets and differentiated assignments
   d Individual progress plans in laboratory and shop courses
   e Diagnosis of difficulties that arise in the course of learning
   f Remedial and corrective measures to eliminate causes of difficulty
   g Provision of a wide variety of materials for developing meanings
   h Use of community resources to vitalize and enrich learning experiences
5 Special provisions for maladjusted and slow learning pupils
   a Adjustment and coaching teachers
   b Opportunity classes
   c Ungraded classes
   d Hospital classes for serious problem cases
   e Special classes for students who have failed some required courses
6 Guidance services which assist in orienting the student and in planning a program of work adjusted to his needs, interests, and potentialities
   a School psychologists
   b Visiting teachers and social workers
   c Counselors and vocational guidance experts
   d Home room teachers and advisory periods
   e Medical services
   f Clinicians to study behavior problems and cases of serious retardation

Effective materials of instruction The importance of an attractive, stimulating environment as a factor in learning is commonly recognized. Learning cannot proceed easily and successfully unless the materials of instruction are attractive, interesting, and well organized and unless their difficulty is adjusted to the ability of the children. Because of wide variations in the mental capacity of the pupils, it is usually desirable to have books of different levels of difficulty at hand. There should also be a wide variety of reference books and instructional materials. Standards for evaluating and selecting materials are fully discussed in Chapters IX, X, and XIV.

Materials for individualizing instruction on skills The most useful materials for individualization of instruction and for remedial work in addition to those that have been described are the following practice tests and workbooks.

Brueckner-Lewis Diagnostic Tests and Practice Exercises in Reading (Philadelphia, The John C Winston Company, 1935)

Brueckner, Leo J and others, *New Curriculum Workbook in Arithmetic* Grades 3 to 8 (Philadelphia, John C Winston Company, 1935)

——, *Meaning and Practice in Arithmetic*, Grades 2 to 8 (Philadelphia John C Winston Company, 1942)

Compass Remedial Cards in Arithmetic (New York Scott Foresman and Company)

Courtis Standard Practice Tests in Arithmetic (Yonkers on Hudson N Y World Book Company)

Courtis Standard Practice Tests in Handwriting (Yonkers-on Hudson N Y, World Book Company)

Courtis Smith Picture Story Method in Reading (Yonkers on Hudson N Y, World Book Company)

The Winnetka Instructional Materials, in the several subjects arithmetic, history geography, spelling (Winnetka Ill Winnetka Educational Press)

There are also numerous reading, spelling, language, and arithmetic workbooks which a wide awake teacher can use to adapt instruction to individual differences

It should be emphasized that much wider use than at present should be made of the available types of instructional materials which make it possible to adapt instruction in the basic tool subjects to the differences in the rates at which children learn

Necessary diagnostic and remedial materials To enable the teacher to adjust instruction to the needs of the pupils cumulative records of work in former grades such as have been described in Chapter VI should be accessible To aid in the discovery of faults diagnostic tests should be available The necessary remedial materials should also be provided When they are lacking, the teacher must devise them Because of their value as incentives, methods of showing the pupils their progress from time to time such as graphs of tests results, progress charts, and similar devices should be used regularly

Guidance and counseling In many secondary schools and higher institutions of learning there is provided a systematic program of guidance and counseling Guidance from the beginning was concerned chiefly with vocational choices of students It was later extended to include educational guidance, that is, the selection of suitable courses in terms of the interests and future careers of the individual More recently the concept of guidance has been broadened to include what is now usually called "counseling which is concerned with the direction of all aspects of learning, including personality development Wrenn has defined counseling as follows [6]

Counseling is a personal dynamic relationship between people who approach a mutually defined problem with mutual consideration for each other to the end

[6] *Guidance in Educational Institutions Thirty Seventh Yearbook* of the National Society for the Study of Education (Bloomington Ill, Public School Publishing Co 1938), Part I p 121

that the younger, less mature or more troubled of the two is aided to a self determined resolution of his problem

From this point of view guidance is a function that pervades all aspects of the educational program, including curriculum, instruction, extra-curricular activities, administration, and community relations Guidance leads to the focusing of attention on the learner, his needs and problems, rather than on the courses he is taking It affects the administration of the school in such matters as flexibility of scheduling, attitude toward extra-curricular activities, regulations about attendance, discipline, and school community relationships The purpose of guidance is the optimum development of each individual in the light of his potentialities

The basis of effective guidance and counseling is information about all essential aspects of the learner s personality, that may help in the solution of any problem that may arise The types of information include many of those that are useful in educational diagnosis, namely, data about his school history, his aptitudes and abilities, his home background and the community environment in which he lives, his goals purposes, and interests, his social and emotional maturity and adjustment his health and his economic and financial status

The techniques used to secure information about the individual s vocational preferences and aptitudes are similar to those used in studying his educational achievements and in making educational diagnoses except that they are focused primarily on matters related to choice of occupation These procedures include first of all various kinds of tests, such as intelligence tests, achievement tests, personality tests tests of vocational aptitude and skills, and guidance tests and inventories One of the most interesting of the last of these is the Kelaiver Hand[7] series useful in self-appraisal and guidance The battery includes six tests and two inventories as follows

Educational Guidance Test
Health Guidance Test
Recreational Guidance Test
Social Civic Guidance Test
Vocational Guidance Test
Student Judgment Guidance Test
Inventory of Student Plans
Inventory of Student Self Ratings

Numerous less formal procedures are also used to secure essential information similar to the techniques of diagnosis described in Chapter VII, including the analysis of records of social, civic, and protective agencies of the community The most useful devices are rating scales, inventories of information, interviews observation of behavior, reference

[7] G N Kelaiver and Harold C Hand *Guidance Tests and Inventories* six tests two inventories manual student profile chart and class record (Yonkers on Hudson N Y World Book Company, 1937)

to diaries anecdotal records, questionnaires, and case histories The advantages of a well-kept system of cumulative records and personnel folders as a source of information for guidance purposes is obvious

One of the most complete accounts of guidance in the modern school is the National Society for the Study of Education's *Thirty-Seventh Yearbook, Guidance in Educational Institutions,* to which reference has already been made

A schedule for evaluating a mental hygiene program The basis of studying and improving the mental hygiene program of a school is suggested in the following schedule prepared by Fenton[8] The evaluation should be undertaken as a group enterprise in which all persons concerned with the problem have the opportunity to participate The ratings while subjective and qualitative are likely to reveal to the staff where the weaknesses in the program lie and to suggest the points at which improvements can be made In a sense the items in the schedule constitute a series of suggestive standards

SCHEDULE FOR THE EVALUATION OF THE MENTAL HYGIENE PROGRAM OF AN ELEMENTARY SCHOOL

KEY FOR RATING A—Excellent, B—Good C—Fair D—Poor E—Very inadequate

1 Does the organization and conduct of the school contribute to the wholesome personality adjustment of teachers and pupils?

a To what degree are special efforts made to understand the needs of individual pupils through the employment of counselors and other guidance specialists who use (1) tests of academic aptitude, (2) measurement of educational achievement (3) study of social history, (4) personal interviews (5) physical examinations?

b How much is done by way of remedial instruction in (1) reading (2) arithmetic, (3) speech (4) study skills (5) other fields?

c Does the health program stress preventive as well as therapeutic aspects of pupil well being

d To what degree are happy spontaneous and constructive recreational experiences provided for all pupils?

e To what extent was the system of evaluation (1) developed through faculty participation, (2) understood by the faculty and (3) understood and accepted by the pupils?

f In the promotion of pupils to what extent is their physical, emotional, and social status considered as well as their academic achievement?

g Does the special education program make adequate provision for (1) the superior (2) the retarded (3) the physically handicapped and (4) the socially maladjusted?

h As for records (1) How adequate are pupil records? (2) How freely are they available for the use of teachers?

i How well is the school equipped (1) to give individual guidance? (2) to employ the guidance conference to give teachers a better understanding of the pupils?

[8] Norman Fenton *Mental Hygiene in School Practice* (Stanford University, Calif., Stanford University Press, 1943) pp 9 11

2 Do the conditions under which the teachers work contribute to their occupational adjustment and mental health?
   a How pleasant, clean, and cheerful are the physical surroundings?
   b To what extent do the community mores permit the teachers a reasonable amount of personal freedom?
   c How adequate are the salaries of teachers with regard to personal security and independence?
   d To what extent do teachers feel that their job tenure is secure?
   e Is there adequate provision for sick leave?
   f Do the teachers have health insurance?
   g To what extent does the teachers' lounge (1) provide reasonable quiet and privacy (2) contain furniture and cooking equipment for teacher comfort?
   h How adequate is the plan of teacher rating?
   i How fairly is the distribution of extra duties handled?
   j Can the teacher feel secure in adapting her methods to her own background and ability?
3 Does the community accept its responsibilities for the mental hygiene of teachers?
   a How well are the teachers welcomed into the community life?
   b How far does the teaching profession enjoy prestige comparable to that of other professions?
   c Are the demands upon teachers time and effort in addition to professional duties reasonable?
   d How well are the teachers efforts at self improvement appreciated and rewarded?
   e How much does the administration encourage teachers recreational enjoyment?
   f Does the teacher have a sense of belonging and of contributing to the community?
4 Does the mental hygiene of the school reflect itself in the mental hygiene of the parents?
   a To what extent do parents in general have a sympathetic knowledge and understanding of what is going on at school?
   b Do parents understand and accept the system of pupil evaluation?
   c Are parent study classes planned (1) to interest the parents in the work of the school? (2) to instruct them in child psychology?
   d How advanced are the plans to have parents spend time at school observing the program?
   e How much does the Parent Teacher Association enter into the life of of the school?
   f How extensive are the opportunities other than the Parent Teacher Association offered for parental participation in school life?
   g To what degree are teachers friendly and hospitable in their relationships with parents?
5 Is the scope of treatment in mental hygiene broader than the school itself?
   a To what extent does the school refer behavior problems to guidance specialists in the community?
   b How far does the school cooperate with the family welfare agencies in the community?
   c How much is the school involved in the after school recreational and other welfare programs of the children?
   d To what degree does the school cooperate with youth organizations such as the Scouts?

The use of the schedule should make it clear that mental hygiene is not something new and unfamiliar but a vital and significant force that operates in any well conducted school This factor is receiving ever increasing attention

Records essential for effective guidance The purpose of school records should be to aid the staff to understand individuals so that effective guidance can be given A well-devised set of records requires the setting up of educational objectives and provides for the gathering of information which enables the staff to determine the extent to which they are being achieved Records should contain as complete and reliable information as possible on the basis of which reports of pupil progress and development can be made to the home, so that school and home can deal cooperatively and consistently with the individual The records should at all times be available to the staff Records should give evidence regarding a pupil's readiness for succeeding educational experiences Transferable records assure continuity of guidance The following statement from the volume by Smith and Tyler sets up a series of criteria to be used as the basis of evaluating any system of records [9]

1 Any form devised should be based on the objectives of teachers and schools so that by its use a continuing study of a pupil will throw light on his successive stages of development in powers or characteristics believed to be important

2 The forms dealing with personal characteristics should be descriptive rather than of the nature of a scale Therefore marks of any kind or placement as on a straight line representing a scale from highest to lowest should not be used

3 Every effort should be made to reach agreement about the meaning of trait names used and to make their significance in terms of the behavior of a pupil understood by those reading the record

4 Wherever possible a characterization of a person should be by description of typical behavior rather than by a word or phrase that could have widely different meanings to different people

5 The forms should be flexible enough to allow choice of headings under which studies of pupils can be made thus allowing a school department or teacher to use the objectives considered important in the particular situation or for the particular pupil

6 Characteristics studied should be such that teachers will be likely to have opportunities to observe behavior that gives evidence about them It is not expected however, that all teachers will have evidence about all characteristics

7 Forms should be so devised and related that any school will be likely to be able to use them without an overwhelming addition to the work of the teachers or secretaries

8 Characteristics studied should be regarded not as independent entities but rather as facets of behavior shown by a living human being in his relations with his environment

[9] Eugene R Smith Ralph Tyler and the Evaluation Staff *Appraising and Recording Student Progress* (New York Harper & Brothers 1942) pp 467 468

SECTION 2

EDUCATIONAL POLICY AND PUPIL PROGRESS

Changes in educational policy and administrative reorganization to improve learning conditions It is interesting to know the kinds of practices field workers believe would be helpful in improving the learning situation A large number of superintendents were asked to answer the question "To reduce pupil failure, what (from your experience) are the six best means which involve a change in educational policy and administrative reorganization—for example homogeneous grouping and differentiation of courses of study" [10] The term *failure* was used broadly to include the different sorts of learning difficulties The twenty-five changes mentioned most frequently by the 555 superintendents of schools are given below Some of these changes have been evaluated in the previous discussion They are arranged in order of frequency of mention, and the number of times each item was mentioned is given at the right of the item In all forty-nine changes were listed in the original report

MEANS FOR REDUCING PUPIL FAILURE THROUGH CHANGES IN EDUCATIONAL POLICY AND ADMINISTRATIVE REORGANIZATION

(Reported by 555 Superintendents of Schools)

1	Organizing homogeneous grouping Division into groups according to ability (the bases of classification should include other factors than intelligence) with flexible regulations which will permit transfer when achievement or lack of achievement justifies	248
2	Differentiation of curriculum and courses of study to fit pupils of different levels of ability Better organized and graded courses of study which more nearly meet present day life needs and are adjusted to the needs of children Rich and flexible curriculum adapted to all types of children Minimum and maximum requirements in quantity as well as quality of work for each grade level Reorganization of material to provide greater inherent interest	94
3	Applying rational promotional practices Remove artificial barriers for promotion promote child at any time during the term when his rate of growth and development shows that he is ready promote child on basis of what is best for him individually keep each pupil doing the best he can rather than establish a common hurdle for all, develop policy of promotion in which failure is not a means for stimulation to better work, but a result of poor adaptation	94
4	Providing special classes Special classes for children physically handicapped, low IQ backward or atypical, new entrants, exceptionally bright, with special talents overage, maladjusted, with foreign language difficulty weak in a particular subject, and with a special vocational interest	88
5	Employing better teachers Selection of higher powered teachers who are more experienced and	84

[10] *Five Unifying Factors in American Education* op cit pp 61 64

better trained, and through in-service training keeping them up to a high grade of efficiency

6	Using standardized tests A definite testing program, including mental tests accomplishment tests, diagnostic tests, and prognostic tests	80
7	Adapting the schools to meet individual needs of pupils Provision for individual differences including individual attention and in some cases individual instruction	78
8	Reducing size of classes Smaller classes with provision for individual contacts between pupil and teacher One superintendent of schools suggested increasing the number of pupils per teacher in some subjects and reducing the number in other subjects another suggested smaller groups in beginning first grade another smaller classes for those of limited ability, and many asked for a general reduction in pupil teacher load	74
9	Developing a consistent program of child guidance or counseling An adequate plan of school counseling—educational health social and vocational guidance—in both the junior and senior high schools under the direction in each building of one or more specially trained school counselors	58
10	Providing helping or coaching teacher Assignment of extra teachers to each school to instruct slow children individually or in groups special teachers well trained and fitted temperamentally	53
11	Providing an accurate supervisory program Definite intelligent supervision which improves teachers in service encourages study of pupils and results in creative teaching more unified supervision, including research diagnosis and follow up	40
12	Securing better motivation through project teaching enriched materials and pupil activity programs	46
13	Carrying out a vigorous health program Health program designed to discover and remedy, as far as possible physical conditions which interfere with school progress—better physical environment health service which will exclude pupils with contagious diseases including colds physical examination of all pupils corrective physical training and health courses designed to develop good health habits and proper attitudes and ideals toward health	42
14	Providing better equipment Buildings equipment and materials of instruction suitable to program studies and varied needs of pupils, adequate library and laboratory facilities, and teaching aids	34
15	Introducing departmental instruction Some superintendents of schools urged that departmental work be introduced as low as the third grade others that it be introduced in grades 4 6, and some did not want it until the sixth grade or above	28
16	Administering a well balanced program of extracurriculum activities Increase pupil's interests through music, art, dramatics and athletics provide adequate supervision of extracurriculum activities	28
17	Organizing the schools on supervised study plan	26
18	Establishing closer contacts with parents	24
19	Introducing new methods of organization and teaching	21
20	Employing visiting teachers	20

21	Lengthening the school day or the school year . . . . A longer school day which permits the inclusion of many worthwhile and interesting activities, a school day long enough to complete all work in classrooms, thus eliminating home work, longer school term	19
22	Admitting pupils to the first grade only when they are mature enough to do first grade work . Admission to first grade only to those apparently ready to progress, regardless of age but with sub primary provisions for those not ready	18
23	Setting up definite educational aims While some superintendents of schools argued for a clear cut definition of objectives expressed in measurable terms others urged that there be less concern over mastery of skills and techniques and more emphasis put on attitudes and ideals in learning	17
24	Revising marking system Insistence that teachers have a clear notion of what rating or marking really means marking and report system which emphasizes citizenship qualities, requiring different standards of pupils of different levels of ability—several superintendents of schools eliminate grades on report cards, giving instead a statement as to whether or not the pupil work is satisfactory i e whether he is doing his best	17
25	Improving faculty meetings and faculty relationships Less formalism in faculty relationships—securing the understanding and cooperation of teachers through committee work and study of common problems, regular teachers' meetings for organized study of pupils needs, prevention of pupil failures and discussion of individual cases	17

The administrative organization of the pupil population for instruction Certain principles of a more or less administrative character are basic to all good instruction and must be taken into consideration in organizing the educational program [11]

Value of grouping of pupils [12]- The first essential to good teaching is a carefully considered plan for grouping the pupils The pupils in a grade or some educational level may be divided into classes on various bases such as age, achievement, or ability, and the classes then further subdivided into groups according to their needs, their interests and special aptitudes, depending on the nature of the work These groups should be changed whenever conditions may warrant it The primary consideration should be the needs and abilities of the individual children as established by available records of achievement, interests and intelligence Special classes for mentally defective and seriously subnormal children who are unable to profit from the regular class work should be provided Suitable provisions should also be made by health services for children who are

[11] *The Grouping of Pupils, Thirty Fifth Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co 1936) Part I is devoted to the discussion of the problem of grouping It emphasizes the importance of considering social grouping as well as grouping on an intellectual or achievement basis

[12] For a compact detailed discussion of this general problem see W H Burton *Introduction to Education* (New York D Appleton Century Company, Inc, 1934) Ch 21

physically handicapped or otherwise not up to par because of bad teeth, poor vision, and the like. Clinical facilities and specialists in remedial instruction to aid in the diagnosis and treatment of severe learning difficulties should also be available. In small places the superintendent or some teacher with special training can often give teachers the needed help.

Readiness for learning.[18] In the lower grades it is especially important that the readiness of young children for the study of such areas as reading and arithmetic be determined before instruction is begun. There is good reason for believing that considerable difficulty can be averted by adapting methods and materials of instruction to the mental, physical, educational, and social maturity of the children when the time comes that there is some value to the activity.

Betts points out that the teaching of reading to beginners would be a less complex task if every child could meet these requirements:

1. Immediate needs that require satisfaction through reading.
2. Sufficient pre-reading experiences to whet the reading appetite and to be aware of the significance of visual symbols.
3. A social adjustment sufficiently adequate to cope with give-and-take situations in the average classroom.
4. A chronological age which would have made possible a general development of the organism sufficient to cope with reading activities.
5. An interest in and good attitudes toward reading.
6. A level of mental maturity that would insure a reasonably rapid rate of learning.
7. A background of information pertinent to that which he is to read.
8. Language facility adequate to deal with direct and vicarious or second-hand experience.
9. Ability to relate ideas accurately and rapidly.
10. A memory span that would insure competency in following directions and in relating experience pertinent to that which is being read.
11. Ability to hear sounds sufficiently well for normal communication.
12. Ability to make auditory discriminations sufficiently well to acquire phonic techniques for word recognition.
13. A level of visual efficiency sufficient to permit the rapid development of specific visual skills required in reading.
14. Ability to make visual discriminations sufficiently well to acquire reasonably rapid control over sight word and visual analysis techniques.
15. Ability to perceive differences in color so that such words as 'red' and 'blue' represent phenomena within his experience and so that experiences gained from reading may be applied in workbook and art activities.
16. Motor control sufficiently developed to permit efficient eye movements, to facilitate the handling of books, and to make possible participation in construction and physical activities.

[18] E. A. Betts, Factors in Readiness for Reading, *Educational Administration and Supervision*, Vol. 29 (April, 1943), pp. 199-230.
Arthur I. Gates, The Necessary Mental Age for Beginning Reading, *Elementary School Journal*, Vol. 37 (March, 1937), pp. 497-509.
Leo J. Brueckner, The Development of Readiness Tests in Arithmetic, *Journal of Educational Research*, Vol. 34 (September, 1940), pp. 15-21.

17 An integrated nervous system free from defects that would interfere with learning, such as speech disorders confused dominance, and word blindness

18 A general health status that promotes a feeling of well being and an attitude of approach to, rather than withdrawal from, worth while learning activities

Burton points out that "readiness is the pedagogical counterpart, so to speak, of maturation, but includes social and intellectual maturity as well." He points out that this important principle is often and easily misinterpreted He says [14]

> We are led to think of "readiness" as a definite locus or condition This leads to three subsidiary errors (*a*) neglect of the genetic development of any power, skill or understanding (*b*) waiting for a given condition of readiness to appear of itself (*c*) assuming without investigation that readiness must be present
>
> In regard to (*a*) we know that growth is a steady ongoing process The designation of any given point in the developmental sequence as readiness for the given learning must be largely arbitrary The (*b*) type of error may cause teachers to overlook the value of stimulation, opportunity and try out thus unduly delaying a given learning The (*c*) error may result in too early stimulation and forcing because readiness is deemed to have been attained This results in frustration and in formal attempts to bring on or induce readiness

Regardless of differences of interpretation a very important point is involved namely when to introduce certain learning experiences The problem is one of balance or pacing The only way we can tell whether a state of readiness has been achieved is to give learners the opportunity to learn and then to watch what happens The concept of a series of readinesses is probably safer than the concept of a fixed locus for readiness Guided by the learners reactions we can adjust to readiness or—if it is preferred—to growth

Earlier bases of grouping For many years various administrative plans have been used to group children Some schemes, such as the Batavia system and the Santa Barbara Plan, were designed to assist the slow pupil so that he could complete the work of a grade in the same length of time as the normal pupils Other plans, such as the Cambridge Plan, the St Louis Plan, double and multiple track plans such as the Portland Plan permitted the more able pupils to advance at a faster rate than the slow

More recently because of the availability of data based on standard tests, attention has been given to new forms of organization which enabled each pupil to progress at his own rate Often plans such as that in use in Winnetka provided for completely individualized instruction in skill phases

Pupils are being grouped on the basis of their mental ability, new plans are being devised for adapting the curriculum to these ability

[14] William H Burton *The Guidance of Learning Activities* (New York D Appleton-Century Company Inc 1944) pp 159, 160

groups, such as the Detroit XYZ Plan, new kinds of individualized instructional materials are being constructed

Ability grouping In order to secure more homogeneous grouping of pupils many schools have used plans of ability grouping, that is, dividing children into classes according to their mental ability Research has revealed the fact, however, that homogeneous grouping on this basis is actually not achieved Even under the most careful and scientific groupings there are found large differences in pupil achievement which must be provided for in teaching

In many quarters the social desirability and the educational effectiveness of ability grouping have been seriously questioned The discussion has been well summarized by Miller and Otto who say [15]

None of the studies has attempted to measure any outcomes except pure achievement It may be that the social and psychological advantages coming out of homogeneous classification will justify the practice, even though there is no significant difference in achievement

If one were to make a final summary statement about the studies of ability grouping one would have to say that, so far as achievement is concerned there is no clear cut evidence that homogeneous grouping is either advantageous or disadvantageous The studies seem to indicate that homogeneous classification may be effective if accompanied by proper adaptation in methods and materials

A flexible plan of grouping pupils Hildreth has described as follows a plan of pupil classification that has been in use for several years in a progressive school system enrolling about four thousand children of an unselected American population [16]

The classification scheme employed in the elementary school is similar in some respects to the usual three track plan Exceptionally gifted or deficient pupils are placed in separate groups The selection of these pupils is made on the basis of combined educational and intelligence tests and opinion based on general observation At suitable intervals surveys of intelligence and achievement of the entire pupil population are conducted after which pupils ranking in the lowest and the highest ten per cent of the population are reexamined with individual intelligence tests From among these pupils the candidates for special groups of superior and deficient pupils are selected For these groups classes are provided in each elementary-school building Transfer to such groups does not take place until adequate study of each child has been made and the parents have been interviewed

All the rest of the elementary school population remain in regular classes Pupils in special groups may progress more rapidly or more slowly than pupils in regular classes The actual rate of progress varies with the particular group and adjustments of the curriculum are made in view of the needs of each group Pupils in regular classes may be further classified on the basis of general ability to progress, if there are enough pupils in any one class to justify the organization of more than one group

[15] W S Miller and Henry J Otto Analysis of Experimental Studies in Homogeneous Grouping, *Journal of Educational Research* Vol 21 (February, 1930) pp 95 109

[16] Gertrude H Hildreth *Psychological Services for School Problems* (Yonkers on Hudson, N Y World Book Co 1930) pp 194 196

Pupils who have reached their thirteenth birthday without graduating from the sixth grade are sent to an opportunity high school which is centrally located Here the children are classified largely on the basis of mental ability A few pupils are found in this group who are retarded solely because of illness or frequent transfer but not because of mental retardation Such pupils are prepared as quickly as possible for the regular junior high school The majority of pupils in the opportunity high school remain there until they reach the age for leaving school In this school much more opportunity is provided for industrial and household arts on elementary levels and for concrete experience than is provided in the elementary schools or in the regular high school

In this scheme of classification no hard and fast rules are adhered to The scheme is entirely flexible at every point allowing for changes and adjustments as the need arises Results from a particular test are not used as the only basis for grade placement or classification Additional details in the classification and educational provision for subnormal pupils in this school system are described by Ritchel

The success of this scheme has been proved by the retention of a larger number of overage pupils in school for a longer period of time than under systems used previously and in the opinion of the principal by the better preparation of these pupils for life The number of retarded children in regular classes has been greatly reduced This classification scheme has also proved a time saver for the especially talented pupils It has provided for greater homogeneity of pupil capacity in the regular classrooms In this scheme fewer pupils fail of promotion than is ordinarily the case Beginning pupils who are found to be mentally retarded are not required to struggle with reading and arithmetic before they are ready for such work

The possibilities of individual instruction are not overlooked in such a scheme In the past many plans of individual instruction have been put into operation with little success Such efforts have become more successful with the development of the project method the invention of self checking devices and drill materials and the possibility of defining goals in terms of standardized test scores

The feasibility of homogeneous grouping As a result of an experimental study of various methods of grouping children and related promotion policies Cook drew up the following series of statements about factors limiting attempts to use homogeneous groups for instructional purposes [17]

1 When the various abilities required for school are measured in age units, we find a range of from six to ten years at the sixth grade level with greater differences above that level and lesser differences below

2 When we attempt to reduce the ranges of abilities by retarding slow learning pupils and accelerating fast learning pupils we increase the proportion of slow learning pupils in each grade we lower average grade achievement, we do not decrease the range of abilities in instructional groups and by placing fast learners who are relatively young in the same group as slow learners who are overage we create serious social as well as educational problems

3 When we attempt to reduce the ranges of abilities through homogeneous grouping on the basis of intelligence or general achievement test scores

[17] W W Cook *Grouping and Promotion in the Elementary School* (Minneapolis Minn University of Minnesota Press, 1941), pp 57 58

we find that the variability of the instructional groups with reference to specific achievement scores is reduced only by approximately 20 per cent

4 When pupils in the lower 5 to 10 per cent of classes are failed because of low achievement they do not necessarily become better adjusted educationally or socially in the retarded position The available evidence indicates that on the average they achieve as much, if not more by being given regular promotion The all important factor seems to be not whether they are promoted or failed but whether their needs are met wherever they are placed

5 The variability of instructional groups with reference to limited goals set largely in terms of material to be memorized may be reduced by a driving type of teaching procedure Such limited goals tend to cultivate the memory rather than the higher mental processes they are usually too advanced for the slow learning pupils and too simple for the fast learning pupils When unlimited goals are set in terms of understandings, skills, and abilities that each pupil can achieve in situations challenging him to do his best the variability of the group tends to increase after a period of instruction The better the teaching the greater the increase in variability

6 Probably the best bases for grouping children are chronological age physical development and social development The idea that grade levels indicate rather definite stages of achievement should be abandoned for in reality they represent very broad, overlapping bands of achievement

The influence of promotion policies on pupil growth and progress Promotion policies vary widely in the schools of this country A recent survey [18] of non promotion of pupils in 49 selected elementary schools in the state of New York showed, for example, that the percentage of non-promotion for the systems varied from 1 8 per cent to 21 per cent, with a median for all schools of 8 5 per cent The variation was much greater for individual grades, ranging for instance in grade 4 from a school with no failures at all to another school with 54 per cent failure at this grade level These differences are typical for the country as a whole The effects of non promotion on pupil progress are reflected by the amount of retardation Ayer [19] reported in 1934 that of a group of 12,000 Texas elementary-school pupils 56 per cent had not made normal progress Similar evidence of a high rate of retardation is given in practically every school survey that has been published in recent years The trend, however, is in the direction of a reduction in the amount of retardation

The arguments that have been most frequently advanced for non promotion are the following

1 Repeating the work of a given grade will assure mastery of the subject matter taught at that grade level

2 Non promotion will result in the formation of a group of pupils at the

[18] Leo J Brueckner *The Changing Elementary School* (New York, Inor Publishing Company 1939)

[19] F C Ayer The Progress of Pupils in the Schools of Texas—1932 33 *Bulletin of the Section of Superintendents* (Austin, Tex Texas State Teachers Association 1933) 36 pp

next grade level that is more homogeneous in ability and level of attainment and hence problems of instruction will be reduced in so far as adapting the work to individual differences is concerned

3 The threat of non promotion will cause the pupil to make a greater effort to learn and thus assure a higher level of attainment

The fallacy of these assumptions has been established by a number of important experimental studies After an analysis of the results of these investigations, Saunders drew the following conclusions which summarize very effectively modern views on the undesirability of a policy of non promotion of the traditional kind [20]

1 Non-promotion of pupils in order to assure mastery of subject matter is not a justifiable procedure Many children who are not promoted learn less than they would have learned had they been advanced to the next grade
2 Non-promotion does not result in homogeneity of achievement within a grade
3 Non-promotion cannot be justified in terms of discipline administered to the child or to his parents
4 Non promotion usually intensifies emotional instability of children
5 Non-promotion because of inadequate mentality insufficient attendance imperfect health, or lack of emotional stability is not based on valid causes or reasons
6 Non-promotion is an admission of inefficient teaching inappropriate administrative practices, and inadequate educational planning
7 Non promotion has no place in a school in which children are properly motivated and work to the level of their individual capacities

Means that can be used by teachers to reduce pupil failure The same group of superintendents referred to on page 518 was asked to answer the question "To reduce pupil failure, what (from your experience) are the six best means which ordinarily lie within the reach of the classroom teacher—for example, diagnosing reading difficulties of individual pupils?' The twenty-five means mentioned most frequently by the 555 superintendents of schools are given below They are arranged in order of frequency of mention and the number of times each was mentioned is indicated at the right In all, fifty means were listed in the report of the study [21]

MEANS BY WHICH TEACHERS MAY REDUCE PUPIL FAILURE

(Reported by 555 superintendents of schools)

1	Using achievement and diagnostic tests followed up by special help and remedial work—test for deficiencies and diagnose pupil difficulties in each subject	374
2	Giving individual attention to pupil needs and interests Teachers sufficiently interested to learn to know pupils as individuals,	300

[20] C W Saunders *Promotion or Failure for the Elementary School Pupil* (New York Bureau of Publications, Teachers College Columbia University 1941) p 44

[21] *Five Unifying Factors in American Education* op cit, pp 55 60

to show sympathetic understanding, and to give individual help during class periods and in personal conferences

9 Grouping according to ability providing differentiated courses of study, and applying teaching methods suitable to each ability level 199

4 Keeping work within the grasp of the pupil 175
Study individual needs and then formulate units of instruction in the light of them, give pupils of low ability simple assignments, develop units of work that will tax the powers of superior pupils—reorganize the course of study

5 Learning about pupil's home conditions and securing cooperation of parents 170
Visit parents of absentees and of children whose work is unsatisfactory, have knowledge of pupil's home and an understanding of home difficulties and personal ambitions, hold conferences with parents after special reports are made to them strive to secure a fine cooperation with the home in developing a satisfactory attitude on the part of the child

6 Diagnosing reading difficulties of individual pupils and giving remedial treatment 157
Improving reading ability of every pupil beginning in the first grade, encouraging good reading habits reading with attention to details training pupils to comprehend what they read, putting more emphasis on rapid silent reading providing more easy reading that the child may give his attention to the content and meaning of the story rather than to the words, and thus form the habit of thinking while he reads introducing wide range of recreatory reading to arouse new interests, and securing careful attention to and feeling of responsibility for vocabulary building in content subjects

7 Creating an *esprit de corps* 153
Maintaining high morale developing enthusiasm for subject by teacher arouse sufficient interest in each subject to carry the pupil over the necessary mechanics of the subject, encouraging close concentration through securing the interest and effort of the child in successfully completing the work required, judicious use of praise rather than reprimand sufficient freedom in work to satisfy the interests of children and to use those interests to motivate the school activities, capitalize success in certain lines as a motive for achievement of attainable immediate goals in others, and appeal to pride and ambition of pupil

8 Improving teaching methods 119
Give more thought to the preparation of the daily lesson plan make liberal use of teaching plans and devices, vary method of attack use project method, develop socialized recitation, create a problem situation as a technique of lesson assignment, use laboratory type of class procedure differentiate methods for slow pupils, and adjust manner of thinking to the thought capacity of the child

9 Providing thorough, purposeful, and motivated drill for accuracy 106
See that the class and the individual student have drill exercises suited to their needs, give more time and attention to a few subjects, drill for thought getting, teach all subjects with the idea of mastery of minimum requirements in mind

10 Teaching pupils how to study and how to organize their work 96
Develop good study habits teach children what mastery means through right study habits in school, develop general aids for studying and

methods of attack which apply to particular subjects such as spelling social studies and geometry supervised study—make recitation a helping period instead of a hearing period

11 Improving health of children 91
Have health inspection each morning refer cases of illness to doctor or nurse see that physical handicaps are diagnosed and corrected emphasize necessity of health habits give attention to physical comfort in classrooms—adjustable seats proper lighting correct temperature and fresh air

12 Giving individual instruction 84
Individual instruction particularly in tool subjects and according to one superintendent of schools At determined points of difficulty keeping a record of these points encountered and laying special emphasis on them during the following year

13 Securing better school attendance 50
Make effort to reduce absence careful check up of all pupil absences parents promptly notified of child's absence more attention to pupil's work after absence

14 Improving one's professional training while in service 40
Through summer school attendance, extension courses and professional reading, secure better professional equipment

15 Apply flexible promotion standards 32
Develop a democratic promotion scheme for example Base promotion on pupil's attainment as compared with his ability provide extra promotion for superior pupils but less stress on arbitrary grade standards and more stress on individual growth

16 Arranging periods for special help for pupils 31

17 Having pupils keep their individual records of achievement 27
Individual and class graphs of achievement kept by pupils under supervision of teachers serve as a means of encouragement and stimulus

18 Working for a definite aim—specific objectives 26
More definite objectives on the part of both teacher and pupils, definite standards of attainment should be set up so that pupils may realize the full year's requirements (One superintendent of schools recommends daily weekly and monthly objectives)

19 Taking special care in making lesson assignments clear 22

20 Providing a working atmosphere in the classroom—this will include suitable teaching equipment supplies and supplementary reading 20

21 Dividing large classes into small groups 20
If large classes are necessary there can be smaller groups arranged within each class

22 Providing expert guidance for pupils 20
This will include proper direction in choice of subject matter

23 Developing a child-centered activity program, arranging for greater pupil participation 18
In this program the teacher's chief interest is in developing pupil's abilities, rather than in teaching subjects

24 Seeing that practical textbooks suited to the pupil's interest and vocabulary are provided 15

25 Giving immediate attention to low grades 13
Diagnosing difficulties at time when best results for improvement can be brought about, checking on all failures at the end of each report period and not waiting until the end of the term

An analysis of the detailed suggestions in the list given above should make evident the many different points of view from which the supervisor can assist the teacher to attack the task of eliminating factors in the instructional situation that may be causing learning difficulty for the pupils

Reducing the amount of retardation Caswell [22] has pointed out that the evidence as to the value of non-promotion as an educational policy is almost wholly unfavorable but that the practice still exists to what many regard as an alarming extent In some schools an attempt has been made to eliminate the practice by executive order directing that non-promotion be reduced to a minimum Such a procedure obviously does not solve the problem Unless necessary adjustments are made the pupil is in the situation of being continually faced with work which is more and more beyond his ability A much more effective plan for solving the problem is for the entire staff to undertake a cooperative study of the issues involved and then to map out a program to achieve the desired end The goal should be the working out of a plan for providing adequate educational opportunities for all of the pupils, a plan adapted to their needs and maturity and adjusted to their level of ability If this is done, the teachers and others concerned will become familiar with all phases of the problem of non-promotion and with the difficulties of solving it, and they will understand the reasons for the steps that are proposed or taken as the result of group action in the formulation of which they have had an active part A list of possible procedures is given below

The steps to be taken to reduce the amount of non-promotion in our schools necessitate many adjustments of educational practices Special consideration should be given to methods of adapting instruction to individual differences which will be great whatever the plan of promotion may be that is adopted These include such items as

1 More effective readiness programs to prepare the pupils for new work
2 The utilization of instructional procedures which provide adequately for differences in the rates at which pupils learn
3 The adaptation of the difficulty of instructional materials to differences in the ability of the pupils so that all may be successful
4 Effective guidance procedures which enable the teacher to study the growth of the student and to make any necessary adjustments
5 A well-graded curriculum in which adequate provision is made for the wide range of interests and ability of the pupils including a well rounded program of co curricular activities

Cook has made a valuable series of suggestions as to the steps the elementary school can take to meet the situation growing out of the great variability within instructional groups, whatever the basis of grouping

[22] H L Caswell *Education in the Elementary School* (New York American Book Company, 1942), Ch 11

or the policy of promotion may be His recommendations may be summarized as follows [28]

1 The administration should make available to every teacher in the school instructional materials with a range of difficulty adapted to the range of ability that she finds in her classroom The interest appeal of the material should also be broad enough to reach all pupils This means an adequate and well-selected school library for the selection of books is more important than the number of books available
In addition to a wealth of books there must be in the classroom magazines, newspapers art materials tools, work benches simple science laboratory materials, pictures, and visual aids of all types The administration must recognize that asking teachers to eliminate non promotion and to provide for the individual differences in their classes, at the same time providing only textbooks of the traditional type is instructional materials is perhaps the lowest form of administrative incompetence

2 The administration should reduce the teaching load to approximately thirty pupils a teacher There is no evidence to support this recommendation except the opinion of teachers who are skilled in the art of adapting group procedures to the needs of individual pupils

3 Educational achievement should be thought of not in terms of the grade in which a pupil happens to be placed but in terms of the individual pupil's progress and level of achievement in specific areas

4 The pupils should have a large share of responsibility not only in setting the immediate goals toward which they strive but in criticizing their own work in terms of these goals This procedure insures that the pupil's attention will always be focused on the next steps in their progress

5 The grade levels at which certain knowledges skills and abilities should be taught cannot be determined with any degree of specificity The important thing is to teach those items that are needed at the time they are needed in the reading writing speaking computing and manipulating activities in which children engage When sixth grade pupils write letters to a sick classmate the errors made by some pupils will be typical of second grade pupils, while others will be typical of ninth grade pupils The teacher must be prepared to lead each pupil through the next steps in his development, regardless of the level

6 Since life outside the school recognizes and rewards a great variety of aptitudes and combinations of aptitudes the school should do likewise The broadening of the elementary school curriculum to include various forms of practical arts fine arts a school paper extended educational field trips participation in community affairs stimulation of hobbies participation in school government, the safety patrol radio programs and community health programs is evidence of the acceptance of this principle The elementary school should be a proving ground in which the individual discovers his peculiar strengths and weaknesses If every child is to find himself the offering of the school must be as broad as the culture of which it is a part

7 Although correlations between desirable traits are always positive for large groups an individual tends to vary greatly in specific traits In order to know a pupil's strengths and weaknesses it is necessary to measure him in many traits and to construct and study his profile
A large number of specific traits enter into a child's achievement in any

[28] Cook, *op cit* pp 58 62

one area The peculiar combination or pattern of an individual s traits is much more important than strengths and weaknesses in specific traits Since the pattern of traits of an individual is unique, the school should be a testing ground upon which the individual with his pattern of traits is brought to grips with complex tasks set by the culture in order to determine what the individual can do

8 Grouping within the class by the teacher upon a wide range of bases is one of the most essential procedures in meeting pupil s needs In the primary division from three to five groups within each grade is common, with the pupils grouped differently in each subject matter or skill area Because the range of individual differences increases in the upper grade one might assume that more sub groups are required on these levels This, however is not necessary because the books and materials used in the upper grades are more flexible and can be adjusted to a wider band of abilities than can be done with primary grade materials

An authoritative discussion of grouping available The issues relative to the problems of grouping children for instructional purposes were discussed in detail in *The Grouping of Pupils*, Part I of the *Thirty-Fifth Yearbook* of the National Society for the Study of Education The reader is referred to this book for further information on problems of grouping The periodical literature contains current accounts

Non-promotion at upper grade levels The adoption of a program of uninterrupted continuity at the level of the elementary school has important implications at the level of the junior high school There are those in our secondary schools who maintain that no pupil should be admitted to the junior high school until he demonstrates the mental ability and the degree of control of the basic intellectual tools of reading language, and arithmetic required to pursue successfully the program of studies provided at that level They maintain that pupils who are not adequately prepared should be retained in the elementary school until they can be certified as ready and able to do the work offered in the junior high school

Such a policy on the part of the junior high schools cannot be too severely condemned If adopted it would result in the piling up of large numbers of children at the sixth grade level many of whom would undoubtedly become serious problem cases especially if they were not promoted for any considerable length of time, as so often happens now at the sixth grade level in states with state examination systems A much sounder policy for the junior high school to adopt would be the one now operating in many places, namely, the admission of all pupils from elementary schools at about the age of 12 years and the adaptation of the program of the junior high school to the abilities, needs, and interests of these pupils As a matter of fact, why need we any longer regard the elementary and junior high schools as different kinds of institutions, each with peculiar functions to perform? Why should we not, rather, consider them as phases of a continuous development program in which what is best for each individual is the primary consideration? Incidentally, this

program of uninterrupted continuity at the lower levels has many implications for the senior high school

Improving articulation between various levels of education Supervision must take steps to coordinate and integrate the separate elements of an educational program into a functioning whole Supervisors must think and plan in terms of the whole education of each pupil rather than in terms of bodies of subject-matter to be taught at various levels A survey of plans used by competent supervisors to improve articulation between the various units of education revealed the following ways and means [24]

1 By developing a better and clearer understanding of the educational philosophy which is to govern the whole process of education rather than a series of philosophies governing each administrative unit
2 By definitely planning a program for the whole school system from the kindergarten through the highest grade in order to avoid breaks and overlapping
3 By organizing programs of coordinated supervision
4 By working toward a unification of the work between the various parts of the school system i e kindergarten and primary elementary and junior high school and junior and senior high school—such unification to be brought about by all supervisory conferences and intervisitation of teachers and principals in the units immediately above and below them
5 By developing courses of study representing cooperative efforts of teachers and principals from different units (These should unify the work and at the same time provide for individual differences)
6 By seeing that a cumulative case record is sent with each pupil when he goes to the next higher grade or unit
7 By demanding better trained teachers
8 By providing teachers with in-service study classes based on principles theories and objectives common to the various units and their differences in objectives purposes, and procedures
9 By collecting evidences of poor articulation
10 By using a supervisory technique based upon a single set of principles agreed upon by the entire local supervisory group
11 By developing with teachers an overview of the entire school program—in group conferences discussing the problem of continuity of work from the skills side as well as from the child's point of view
12 By giving to each teacher for comparison a report of all classes in the school system on the same units of work as taught in his class
13 By encouraging less rigid classification brought about by a rigid grading system
14 By arranging (*a*) exchange of classroom visits between the various units and (*b*) exchange of teachers between the various units

SECTION 3

THE GUIDANCE OF LEARNING EXPERIENCES

Foundations of modern instructional procedures Instruction is concerned with the efficient sympathetic management of the educative experiences of children a continuous "planning" activity The primary

[24] *Five Unifying Factors in American Education, op cit*, pp 101 106

purpose of the school is to assist boys and girls to improve their daily living In a democracy instruction recognizes the worth of creative human individuality and seeks to develop in each pupil the disposition, ability, and power to consider and explore the problems that are faced by himself and the social group, and the factors that give rise to them In many cases these problems should be those about which the pupils can do something to effect their solution in a cooperative democratic way so as to produce conditions that promote and sustain creative experience for all Pupils thus come to expect further change by intelligent action and get ideas as to the direction of expected change They become habituated to the use of scientific methodology in dealing with problems They discover for themselves the social values for which mankind has for many generations been struggling The modern school furthermore seeks to help the students to understand and learn the ways of democracy by exemplifying in its program and practices the type of life which our nation is striving to achieve

Learning an active social process Dewey's educational philosophy has presented the view that education should be regarded as an active social process This view has had a powerful influence on instruction in this country because of the emphasis that it places on learning through 'activities' and first hand experiences in lifelike social situations The salient points in his philosophy have been summarized as follows [25]

> Knowledge originates in active situations or problems that education is preeminently a social process, and that school life and social life must be unified the school becoming cooperative society that this facing of problems considering the means making choices making mistakes achieving successes and going on to other and more difficult problems under the drive of social inspiration rather than that of mere authority is the true path to character and that education, thus actively considered is in harmony with democratic philosophy—is in fact the normal education of the free man in a society that he and his fellows create and recreate Historically considered it is the resultant of many tendencies of centuries past to which brief allusion has been made, but it is more than that It is a careful critical synthesis of these, in the light of a more advanced knowledge of psychology and sociology with a profound appreciation of the demands that democracy makes of education and that must be satisfied if government by the people is to be more than a phrase

The educational program must provide a rich, wholesome, stimulating environment which continuously presents the child with new and interesting possibilities that keep him moving forward with zest and initiative and give him the opportunity to practise those skills, abilities, and behavior patterns which it is desired to develop The personalities with which the learner comes into direct contact should be well balanced, poised, and cultured because of the great influence they have on the

[25] Thomas Woody in *The Activity Movement, Thirty Third Yearbook* of the National Society for the Study of Education (Bloomington, Ill, Public School Publishing Co 1934) Part II p 39

development of the personality of the pupil Positive encouraging helpful suggestions are much more effective in eliciting desirable conduct and result in more enduring satisfying behavior than discouraging negative unfavorable contacts

Dewey's interpretation of the rôle of the teacher There have been many different conceptions of the rôle of the teacher in the educative process At one extreme there is the view that the teacher is the autocratic dispenser of the subject-matter that those in authority believe should be mastered by the learners At the other extreme is the view that to all intents and purposes the teacher is an interested observer of pupil activities, leaving to them the choice and management of the activities of the class In his book, *Education and Experience*, Dewey criticizes both points of view and presents a statement of position much more in harmony with current views of the function of the teacher in the schools of a democratic society Lee and Lee have selected from his book a series of statements which summarize his views clearly and succinctly It is evident that Dewey believes that the teacher [28]

1 Must have *that sympathetic understanding of individuals as individuals* which gives him an idea of what is actually going on in the minds of those who are learning

2 Must understand the needs and capacities of the individuals who are learning at a given time It is not enough that certain materials and methods have proved effective with other individuals at other times There must be reason for thinking that they will function in generating an experience that has an educative quality with particular individuals at a particular time

3 Is responsible for knowledge of individuals and for a knowledge of subject matter that will enable activities to be selected which lend themselves to social organization an organization in which all individuals have an opportunity to contribute something, and in which the activities in which all participate are the chief carriers of control

4 Must survey the capacities and needs of the particular set of individuals with whom he is dealing and must at the same time arrange the conditions which provide the subject matter or content for experiences that satisfy these needs and develop these capacities The planning must be flexible enough to permit free play for individuality of experience and yet firm enough to give direction toward continuous development of power

5 Must be able to judge what attitudes are actually conducive to continued growth and what are detrimental

6 Must not only be aware of the general principles of the shaping of actual experience by environing conditions but that they also recognize in the concrete what surroundings are conducive to having experiences that lead to growth

7 Must select those things within the range of existing experience that have the promise and potentiality of presenting new problems which by

[28] From Dewey *op cit* The quotations are taken in order from pp 38 45 61, 65, 38 35 90 85 66 Quoted in J M Lee and Doris M Lee, *The Child and His Curriculum* (New York D Appleton Century Company Inc, 1940), p 225 Quoted here by permission of The Macmillan Company

stimulating new ways of observation and judgment will expand the area of further experience

8 Should allow his suggestion to develop into a plan and project by means of further suggestions contributed and organized into a whole by the members of the group

9 As the most mature member of the group has a peculiar responsibility for the conduct of the interactions and intercommunications which are the very life of the group as a community

The unit of instruction and learning It is commonly recognized at the present time that one of the most fruitful, effective ways of organizing the instructional program is through the use of units of experience Experience units deal with some need, difficulty, problem or topic of concern to the learners Experience units are organized about some purpose of the learner and consist of the steps necessary to achieve the purpose A number of attempts have been made to formulate the procedure to be used in such units The general consensus as to the series of steps involved may be indicated briefly as follows

1 The study of the needs of the pupils the stimulation of interest, and the identification of the problems or topics with which the group is to be concerned

2 The focusing of attention on the selected area the listing of the problems and topics to be considered, and the planning of future steps to be taken by individuals groups and the class as a whole

3 The gathering of information needed through reading discussion observation experiment and other means

4 The integration of information and the results of action into oral and written reports exhibits, constructions, works of art and various forms of creative activity

5 Presentation and consideration of the results of study and investigation by the members of the class

6 Evaluation of the outcomes of the unit by the pupils in terms of their goals and by the teacher in terms of the major educational objectives

Criteria to be considered in selecting units of experience In the selection of units of work such criteria as the following should be given consideration

1 The extent to which the unit approximates real lifelike situations and satisfies pupil needs

2 The extent to which a wide variety of activities are possible so that there are means of adapting the work to individual differences among the pupils

3 The social values inherent in the unit and in the activities

4 The appropriateness of the unit in the development of growth

5 The ways in which it is possible to integrate the contributions from several areas of the curriculum

6 The value of the outcomes in terms of pupil purposes, ideals, attitudes and so forth

7 The extent to which it leads subsequently to further learning activity

8 The extent to which it is possible to provide opportunity for experience in cooperative group activity and for practicing the ways of democracy

An excellent discussion of different kinds of units of instruction is contained in J A Michener and H M Long, *The Unit in the Social Studies* [27]

Another excellent series of criteria as a guide in the selecting of a unit of experience is the following statement by Hockett and Jacobsen [28]

CRITERIA TO BE CONSIDERED IN SELECTING AND DEVELOPING A UNIT OF EXPERIENCE

1 The unit should involve intimate contact with an aspect of life sufficiently important to merit earnest and persistent study
2 It should have many points of contact with the present interests and experiences of the pupils but should be sufficiently new and difficult to challenge their enthusiasm and their best efforts It should, however, be within the children's abilities so that success is possible
3 It should be sufficiently comprehensive to provide a rich variety of experiences for the whole class and for each individual and should make possible abundant first hand contacts with source materials
4 The unit should be sufficiently comprehensive to permit the pupils to carry on a series of consecutive activities including purposing planning executing and evaluating, and to modify their plans and activities in the light of their developing experiences
5 It should illuminate important concepts and relationships lead to acquisition of accurate, useful organized information extend old interests and stimulate new ones require systematic thinking and problem solving and provide incentives for the exercise and development of useful habits and skills
6 It should provide through various forms of individual and group expression abundant opportunities for clarifying and enriching the new conceptions gained Creative expression through writing drawing, painting, modeling construction dramatization pageantry puppetry, music and other means is an essential part of the process of acquiring understanding
7 The unit should provide for continuous sharing of purposes, activities, and achievements in an atmosphere of cooperative effort
8 It should be practicable in the particular school and community environment at the particular time, and with the particular group of children

In the modern school it is generally recognized that instruction should be concerned not only with subject matter but also with the experiences through which learning takes place In the traditional school the emphasis was primarily on the mastery of a set body of subject-matter through a relatively narrow range of formal activities, including reading listening, memorizing, reciting, answering questions working examples, and drilling Little consideration was given to the development of understandings, attitudes, interests, and appreciations The experience unit overcomes the weaknesses inherent in the subject matter unit of the past

[27] J A Michener and H M Long *The Unit in the Social Studies*, Harvard Workshop Series No 1 (Cambridge Mass Graduate School of Education Harvard University, 1930)

[28] J A Hockett and E W Jacobsen *Modern Practices in the Elementary School* Boston Ginn and Company 1938), pp 71 75

Differences between old and new procedures Many of the instructional procedures in the modern school are in sharp contrast to those used in the more traditional school The following analysis of some of these differences, prepared by Lee and Lee after a study of a number of similar statements, shows the variance in practices very clearly [28]

Old	New
A Goals	
1 Preparation for the future	1 Making the most of present living
2 Facts and skills taught which were necessary for adult life	2 Facts and skills used to contribute to the total development of children
3 Passing on the cultural heritage	4 Understanding and control of present day personal and social needs
4 Withdrawn from community	4 Utilizes resources of community
5 Static aims and materials	5 Acquaintance with a changing world
B Learning	
6 Dictated, prescribed and controlled learning by text and teacher	6 Learning through experiences involving planning self direction discovery, exploration and thinking
7 Assigning questioning and evaluating by teacher	7 Self assignments, discussions of findings and evaluation of own work by children
8 Acquisition of skills and abilities by isolated drill	8 Acquisition of skills and abilities as a result of a need or lack
9 Learning through studying about life	9 Learning through active participation in group and community living
10 Things to be learned selected according to sequence in subject	10 Things to be learned selected according to maturation of children
C Organizing Experiences	
11 Course organized into highly specialized subjects	11 Subject lines are being broken down and organization is taking place around broad fields or functional areas
12 Courses tended to be worked out in advance	12 Planned in advance but with much opportunity for pupil participation and direction
13 Courses utilized only intellectual materials of highly academic type	13 All types of experiences are utilized, visual aids radio, community resources
14 Definite distinction between curricular and extra-curricular activities	14 All experiences affected by the school are part of the curriculum

[28] Lee and Lee *op cit*, pp 174 175

Old	New
D Discipline	
15 Imposition from above, rigid and passive	15 Expression and cultivation of individuality in a working situation
16 External discipline	16 Control inherent in the social situation in which all are working for a common purpose
17 Competitive, striving to beat one's associates	17 Cooperation with others to achieve a common purpose
E Administrative Procedure	
18 Concerned with efficient routine	18 Aid to improving the educational experiences of children
19 Scheduling in small inflexible blocks of time	19 Scheduling in longer flexible blocks of time
20 Adherence to definite class divisions	20 Flexible grouping of pupils

The contrast between traditional and modern methods of instruction has been well summarized by Burton in the following series of statements [10]

Traditional methods rest upon the beliefs that

1 Society and education are static and authoritarian
2 The learner is passive and receptive
3 The learning process is associative and/or additive (the terms *atomistic* and *mechanistic* are often used)
4 The teacher is a task setter and drill master

Modern methods rest upon the beliefs that

1 Society and education are dynamic and democratic
2 The learner is a behaving organism an active participant in his own education
3 The learning process is continuous interactive purposeful experiencing
4 The teacher is a participating guide

Basic principles of learning as guides to teaching Modern psychology holds that the growth of the child from birth to adulthood is a continuous process that cannot be divided into specific stages marked by well defined boundaries Each bodily organ and each mental function apparently has its own characteristic growth curve Those elements develop at different rates and mature at different points in the life of the individual Development is therefore not a single uniform process that is general in character but is rather the composite of a whole series of specific growth processes, many of them interrelated

The capacity to modify responses is a general characteristic of the whole life process The child possesses a very high degree of adaptability and capacity for learning during the entire developmental period Thorndike has shown that this capacity continues throughout adult life to only a slightly lesser degree

[10] Burton *The Guidance of Learning Activities* op cit, p 29a

The following highly condensed list of principles of learning represents a synthesis of the views expressed in many sources Special mention should be made of the 'reconciliation' of the views of exponents of prevailing theories of learning by McConnell in *The Psychology of Learning*, Part II of the *Forty-First Yearbook* of the National Society for the Study of Education,[31] to which the reader is referred for a detailed analysis of theories of learning

1 Learning should be goal centered The learning activity should be purposeful The more remote goals as well as the immediate task at hand should be clearly understood The motivation should be adequate to maintain activity The means end relationships should be clear to the learner The contribution of interest is fundamental

2 There should be readiness for learning Readiness includes not only a favorable attitude toward the activity to be pursued but also the capacity, maturity, and previous experience necessary to successful performance

3 Learning is reacting, there can be no learning without pupil response and activity There are many simultaneous learnings in any learning experience Education is a growth process involving experiences adapted to the age needs health, interests and ability of each individual

4 There should be intent to learn The learner is more likely to recall aspects of objects, activities and situations to which he has attended directly and actively

5 The learning experience should be meaningful and significant To be meaningful the essential relationships involved must be understood The organization of pupil experience and the use of what is learned in social activity facilitates retention

6 During the learning process responses are modified by their after effects Responses are selected and eliminated organized and stabilized in terms of their relevance to the learner's goal

7 Spaced or distributed learning is superior to massed or concentrated learning Frequent and strategically placed reviews aid recall and retention

8 The wholeness of learning should be emphasized Effective learning does not arise from the memorization of isolated facts or the mastery of parts divorced from wholes but from the understanding of essential part-whole relationships and their organization The ability to detect differences as well as likenesses is an important aspect of effective learning

9 Knowledge of progress is essential to effective learning Since a fundamental condition of learning is intelligent trial and correction, knowledge of progress in learning becomes an essential condition of learning

10 Transfer of learning between situations is roughly proportional to the degree to which the situations are similar in structure or meaning Learning is facilitated by increasing the number of connections where each new association adds new meaning to the material

11 Learning is essentially complete when the learner has grasped the essential relationships in the situation and has mastered the basic principle involved Subsequent practice will ordinarily insure greater precision of response and a higher level of performance

[31] T R McConnell *The Psychology of Learning, Forty First Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co 1942) Part II

12 *Overlearning strengthens retention* Overlearning should not be carried beyond reasonable limits

An excellent example of the application of these principles is the summary of research on the teaching of spelling by Horn [32]

1 The student's efforts should be focused upon words or parts of words which a pretest has shown him to be unable to spell

2 The mode of sensory presentation should be predominantly visual but the correct pronunciation of the word by syllables is also important In the actual process of learning auditory, motor and kinesthetic appeals will also be used

3 The emphasis during learning should be upon visual imagery but auditory and kinesthetic imagery which attend the pronunciation of the word and motor imagery which accompanies the writing of the word increase the effectiveness of learning The use of imagery is obviously related to the practice of recall Although saying the letters is not generally recommended it is apparently effective in the case of some pupils
Imagery and imagery types are among the most baffling problems in psychology It is futile to suggest as is sometimes done, that teachers discover the image type of each pupil as a basis for his individual method of study In the first place, it is doubtful whether students have image types that are so exclusive or even so predominant as this advice implies In the second place the trained psychologist cannot attack this problem with confidence and the task is quite beyond the ability of the classroom teacher In the third place, the evidence seems to show that except in the case of pupils suffering from severe and highly specialized disabilities those who tend to learn best through one form of imagery tend also to learn best through others

4 Aggressive efforts to recall should be interspersed with sensory impression The practice of recall is obviously bound up with the use of imagery Investigations in all fields of learning have shown the crucial influence of recall It is moreover the ability to recall the word that is needed in the application of spelling in written language

5 Distributed learning seems to be better than mass learning but the student's efforts in any learning period should probably not stop short of a temporary mastery The general plan of reviews will afford a minimum distribution but this plan should be supplemented, particularly in the case of students of low ability by additional distributed learning periods

6 Both in the original learning period and during each review words should be overlearned i e, they should be learned beyond the point of one successful recall The term 'overlearning' is somewhat inept since overlearning is essential to mastery and in the long run saves time The amount of overlearning that is efficacious in spelling has not been accurately determined, but the desirable amount may be expected to vary with individual students

7 Since it is advisable that the pupil assume the chief responsibility for his progress, he should be led to appreciate the importance of these procedures He will have greater confidence in them if he knows that they were painstakingly determined for his service by careful scientific methods A conviction that the intelligent and aggressive use of these steps in

[32] From W S Monroe editor *Encyclopedia of Educational Research* pp 1177 1178 By permission of The Macmillan Company publishers

learning will bring results is essential in the development of the desirable attitudes which contribute to efficient work

Guidance of specific learning activities Numerous statements of rules for effective study and work are available in the literature of education The basic principles underlying the general rules on study have been summarized by Barr as follows [33]

1. Distributed practice is more effective than concentrated practice
2. Learning by wholes is more effective than learning by parts
3. Reactions accompanied by satisfying effects are more quickly learned than those accompanied by dissatisfaction and annoyance
4. Pupil interest is closely related to pupil ability interest in an activity cannot be secured unless the child can successfully function in that activity
5. Meaningless material is sooner forgotten than meaningful material
6. Reactions required in one situation tend to transfer to other situations everything else being equal that method of instruction is best which secures a maximum amount of spread
7. Demonstration and active participation are often superior to verbal descriptions in learning
8. Functionally taught subject matter is longest retained and easiest applied The absence of any one of the above conditions may constitute an adequate cause of poor work

These and other factors are fully discussed in current treatises on the psychology of learning and on how to study [34] and will not be reviewed here

Several important studies have been undertaken to determine the principles underlying methods of study in particular fields, such as spelling These investigations have culminated in some cases in clear-cut statements of principles of learning stated as guides for the learner which will ordinarily insure success when applied in study A typical analysis of this kind for the field of spelling is the following statement [35]

Step I The first thing to do in learning to spell a word is to pronounce it correctly Pronounce the word saying each syllable very distinctly and looking closely at each syllable as you say it

Step II With closed eyes try to see the word in your book syllable by syllable as you pronounce it in a whisper In pronouncing the word be sure

[33] A S Barr *Introduction to the Scientific Study of Supervision* (New York D Appleton Century Company Inc 1931), p 166

[34] See, for example, C Bird, *Effective Study Habits* (New York, D Appleton Century Company Inc 1931) W F Book, *Learning How to Study and Work Efficiently* (Boston, Ginn and Company, 1926), A L Hall Quest *Supervised Study* (New York, The Macmillan Company 1916) Guy M Whipple *How to Study Efficiently* (Bloomington Ill, Public School Publishing Co, 1927) John Dewey *How We Think* (Revised edition, Boston, D C Heath and Company 1933), W S Hunter, Experimental Studies of Learning in Carl Murchison, editor *The Foundations of Experimental Psychology* (Worcester Mass Clark University Press, 1929), pp 564 627

[35] E. Horn and E. J Ashbaugh, *Progress in Spelling* (Philadelphia J B Lippincott Company 1935), pp xv xvi

to say each syllable distinctly After saying the word, keep trying to recall how the word looked in your book and at the same time say the letters Spell by syllables

Step III Open your eyes, and look at the word to see whether or not you had it right If you did not have it right, do step one and step two over again Keep trying until you can say the letters correctly with closed eyes

Step IV When you are sure that you have learned the word, write it without looking at your book and then compare your attempt with the book in order to see whether or not you wrote it correctly If you did not write it correctly, go through steps one two three and four again

Step V Now write the word again See if it is right If it is, cover it with your hand and write it again If your second trial is right write it once again If all three trials are right you may say that you have learned the word for the day If you make a single mistake, begin with step one and go through each step again

There are other such statements of techniques for the study of words in spelling, most of which are quite similar to this one

Another approach to the problem of direct guidance of learning is the analysis by Freeman of the available evidence as to the correct position to be assumed by the individual for handwriting His statement of principles for determining the desirable position is as follows [80]

1 The writer should sit erect
2 The feet should rest on the floor but the seat should be high enough to place the thighs in a horizontal position
3 The edge of the seat should project a few inches under the edge of the desk
4 The writer should face the desk squarely
5 The forearms should rest on the desk for approximately three fourths of their length with the elbows about three or four inches from the body
6 The paper should be directly in front of the writer
7 The top of the desk should slope a little toward the writer
8 The paper should be tilted so that the lower edge forms an angle of not more than 30° with the edge of the desk
9 The forearm should form a right angle with the base line of the writing
10 The pen or pencil should be held loosely
11 The hand should rest on the third and fourth fingers rather than the side
12 The hand should be held with the palm down until the wrist is practically level
13 The light should come from the left side or above, or both

Horn has prepared a statement of principles the application of which by both teacher and the learner will, he believes, make the best provisions for the retention of ideas and the development of experience in the social studies These are the outgrowth of a critical review of the existing experimental evidence in the field of memory The list of principles which

[80] F N Freeman Principles of Method in Teaching Writing as Derived from Scientific Investigation in *Eighteenth Yearbook* of the National Society for the Study of Education (Bloomington, Ill Public School Publishing Co 1919) Ch 1

are discussed in detail in Dr Horn's book, *Methods of Instruction in the Social Studies* follows [27]

1 Both teacher and students should know the chief characteristics of forgetting and the best ways of providing for the retention and development of experience

2 There should be a clear understanding on the part of both teachers and pupils of what is to be learned, whether facts, concepts, principles, attitudes ways of working, or knowledge of sources

3 The amount and quality of what is retained are heavily conditioned by what is done in the period of original learning

a The instructional materials should be organized in terms of one or more significant purposes

b Students should be encouraged in an aggressive, active, and purposeful attitude toward the problems under attack Of special importance is the determination to learn and remember

c It is imperative that all important ideas be clear accurate, and well organized Otherwise, efforts to provide for future use will be largely a waste of time

d The impression whether through reading hearing or observation, should be interspersed with attempted recalls, in order to show shortcomings in the result of the impression

e Overlearning appears to be economical in the long run even in the early stages of learning Much more thorough work must be done in the original learning period than at present before the point of overlearning is even approached

f The contribution of interest is fundamental

4 There must be definite provisions for review No matter how well any material is understood or learned in the original learning period it tends to be gradually forgotten unless definite provision is made for maintenance and growth

5 There must be a material reduction in the amount to be learned This insistent emphasis upon the reduction of the amount to be learned does not imply a curtailment of details or a diminution of the rigor of the search for truth What is needed is more rigorous thought operating on more details but devoted to the study of a smaller number of basically important matters

In each of the above cases the emphasis is on principles of learning Pupils must be taught how to adapt these general principles to their own particular needs Because of differences among individuals no attempt should be made to impose a single pattern of work and study on all learners Through careful guidance however pupils should be led to select from among techniques of known merit those that are most effective for themselves For analyses of principles of methods of teaching and study in other major curriculum areas the reader should consult the *Eighteenth Yearbook* of the National Society for the Study of Education [28] The *Reviews of Educational Research* listed in the bibliography

[27] The list of principles comments, and sub principles with amplifying discussion appears in E Horn *Methods of Instruction in the Social Studies* (New York, Charles Scribner's Sons 1937) pp 497 509

[28] Fourth Report of the committee on Economy of Time *Eighteenth Yearbook* of the National Society for the Study of Education *op cit* Part II

at the end of the chapter provide a convenient list of studies and summaries of the findings for each of the major fields of instruction at all levels of the school These reviews should be in the library of every supervisor

SECTION 4

THE BASIS OF CORRECTIVE AND REMEDIAL INSTRUCTION

Difficulty of correcting unsatisfactory conditions It has been repeatedly demonstrated that training and practice ordinarily produce marked changes in specific traits For instance, teaching procedures that stress rate of reading will under normal conditions produce a marked increase in the pupil's rate of reading [39] Similarly emphasis on problem solving in arithmetic will yield excellent results [40] If a pupil does not readily respond to instruction the teacher must take steps to locate the source of the difficulty and to apply appropriate remedial and corrective measures

There are marked differences in the ease with which desirable changes can be brought about Some of the deficiencies such as mental defects, cannot be corrected by any known techniques Other faults such as stuttering are often very difficult to correct although in most cases careful treatment will produce marked changes [41] Hygienic measures can in most cases greatly alleviate physiological weaknesses, such as faulty vision malnutrition and glandular disturbances Many of the minor difficulties that arise at various stages in the learning of the various school subjects for example lip movements in reading or counting in arithmetic disappear with the passing of time and growth in control of the basic skills Other faults such as failure to learn basic skills in arithmetic or the vocabulary of a foreign language are cumulative and become more serious the farther the student progresses The reduction of character traits, interests attitudes, and the like is often extremely difficult to accomplish because of the inability of the school to control in the community the influences that condition them The correction of these faults is usually an individual problem and should be approached from this point of view

The mental hygiene factor in remedial instruction Burnham has made the following statement of the place of mental hygiene in the instructional program [42]

> 1 The primary aim of mental hygiene is the preservation and development of a wholesome personality and the prevention of personality disorders

[39] Arthur I Gates *The Improvement of Reading* (Revised Edition New York The Macmillan Company 1935)

[40] Worth J Osburn and I J Drennan, Problem Solving in Arithmetic *Educational Research Bulletin,* Vol 10 (March 4 1931) pp 123 128

[41] Lee E Travis *Speech Pathology* (New York D Appleton Century Company Inc, 1931)

[42] W H Burnham *The Wholesome Personality* (New York D Appleton Century Company, Inc 1932), pp 476 477

2 Hygiene requires respect for the personality of each pupil as a unique and independent individual—an object for observation and study, but never for snap judgments

3 Hygiene requires regard for the whole personality as an integrated unit the whole child as shown in his interests and behavior, in home, playground and the like as well as in the school

4 For the preservation and the development of a wholesome integrated personality hygiene requires a task of his own for each pupil and the maximum of freedom in the choice and doing of the task

5 Hygiene requires the adjustment of the task to the personality and stage of development of each pupil, so that each may receive the stimulus of success

6 Hygienic activity is attentive activity, for attention is integration In many schools with methods now used the teachers usual complaint of inattention suggests that much of the work is not hygienic

7 Hygiene requires the avoidance of conditions disintegrating and confusing in the instruction and training especially harsh criticism sarcasm blame and anything that reflects upon the personality of the pupil such as words and actions that call attention to a personal defect or inferiority

8 Hygiene emphasizes the health value of the objective or scientific attitude or in educational terms, the learning attitude in its highest form thus emphasizing truth rather than opinion learning rather than teaching and the value of training in the scientific attitude in all school activity

General procedures in corrective and remedial instruction The classification of procedures used in corrective and remedial instruction given below suggests a basis of action that may be applied in a more definite way to particular areas of the curriculum or forms of behavior It was derived from a survey of many studies in these fields

1 Medical Care
   - *a* Correction of physiological defects of vision hearing, etc
   - *b* Elimination of factors causing fatigue
   - *c* Change in nutrition and diet
   - *d* Glandular therapy
   - *e* Elimination of focal infections of teeth tonsils, etc
   - *f* Cure of disease such as syphilis encephalitis etc
   - *g* Recreation
   - *h* Relaxation and rest

2 Psychological Psychiatric Procedures
   - *a* Awareness by the learner of the status of his difficulty and its significance
   - *b* Confidence in therapist
   - *c* Use of rewards and approval
   - *d* Use of penalties, punishment, and disapproval
   - *e* Use of competition, with self and others
   - *f* Development of interest in what is being learned or done
   - *g* Changing undesirable attitudes toward associates, school community
   - *h* Providing release from emotional conflicts
   - *i* Insuring appreciation and sympathy of associates through planned group contacts
   - *j* Use of suggestion advice, persuasion, direction reasoning

k Requiring shift of hand used in activity as in writing because of dominance
l Providing practice on faulty procedure through knowing correct one
m Substitution of interests, stimuli or goals for present ones
n Kinesthetic sensation as in tracing forms of letters

3 Modification of the curriculum
a Adaptation of content of instruction to development level of the learner
b Careful analysis of steps of difficulty in learning
c Use of rich social experiences to broaden background of meanings
d Adjustment of work to ability, interests, and needs of pupils
e Use of content of social value
f Means of exploring new interests and special aptitudes
g Use of concrete materials from the locality
h Opportunity for effective functioning within the limitations of the individual
i Special hospital classes for severe disability cases

4 Methods of Instruction
a Self diagnosis by learner to locate and clarify his shortcomings
b Securing cooperation of learner in the application of corrective procedures
c Explanation of corrective treatment to be applied
d Setting goals possible of achievement by individual learner
e Direct attack on specific shortcomings and difficulties
f Adjustment of instruction to level of progress of the individual
g Such reteaching as may be necessary
h Teaching of effective methods of procedure and perception
i Teaching of effective study habits
j Correction of faulty mental processes and steps in procedure
k Correction of faulty handling of materials and tools of work
l Demonstration of accepted procedures
m Provision of good models for study and imitation
n Teaching of crutches and aids to learning
o Provision of practice on desired trait or ability
p Distribution of practice so as to avoid boredom and fatigue
q Awareness of learner of success and rate of progress
r Adaptation of instruction to interests needs and ability of learner

5 Materials of Instruction
a Proper difficulty
b Interest and appeal to the learner
c Variety of types adjusted to development of particular traits skills and abilities
d Abundance of materials suited to purposes
e Adequate provisions for study and practice
f Scientific specifications used in construction
g Provision for individual differences in rates of progress
h Facilitation of self diagnosis of difficulties by learner
i Provision for treatment of specific deficiencies
j Progress graphs
k Provision for maintenance of skills and abilities
l Rich variety of supplementary aids to learning
m Hygienic conditions in classroom

6 Environment
a Removal of learner from unwholesome environment

b Correction of unfavorable conditions in the physical environment
c Securing cooperation of associates
d Psycho-therapeutic treatment of parents, teachers, etc
e Securing cooperation of various social agencies
f Provision of recreation facilities

Principles of remedial and corrective instruction Under ideal conditions the number of pupils who do not make satisfactory progress will be reduced to a minimum But under existing conditions there will be found in almost every class numbers of pupils who are encountering learning difficulties of varying degrees of seriousness Numerous studies have been made to discover ways of eliminating these faults These methods are fully described in the references at the end of this chapter and in the bibliography in Chapter VII They will not be reviewed in any detail at this point

The following general principles may be regarded as basic in a program of remedial and corrective instruction if improvement is to result

1 *Consider the growth of the individual* The primary consideration in planning an instructional program should be the growth of the individual Instead of thinking of means of improving particular skills or the work in some subject the teacher should focus attention on the problem of facilitating the well-rounded growth of the learner and discovering the reasons why particular learners are not making satisfactory progress The latter approach is more likely to establish a comprehensive basis of developmental and remedial teaching than the former There is then some assurance that all aspects of the learner's personality including his *physical conditions, his intellectual level, his scholastic achievements,* his attitudes and interests, and his general behavior will be given consideration If attention is focused on the improvement of some narrow skill many important aspects of personality such as those listed previously are likely to be overlooked

2 *Use instructional procedures likely to achieve desired goals* Instruction must be guided by clearly formulated educational objectives Means must be devised for determining the extent to which these outcomes are being achieved The teaching methods that are used should in so far as is possible be selected from among those that have been validated by scientific study, so that the teacher may have some assurance of success An illustration of such a series of teaching procedures all of which have been experimentally validated is the following list of ways of improving ability of pupils in problem solving in arithmetic, compiled by Brueckner [48]

1 Having the pupils solve many interesting, well-graded problems during the arithmetic period will yield big returns More problems of this sort

[48] *Educational Diagnosis Thirty Fourth Yearbook* of the National Society for the Study of Education (Bloomington Ill, Public School Publishing Co 1935), pp 299 300 This yearbook contains helpful analyses of means of facilitating learning in all phases of the curriculum

are needed than are now found in some arithmetic textbooks The teacher should take advantage of the many opportunities that arise in the work of the class in their other subjects to bring out the uses of number processes and to give the pupils concrete experience in the manipulation of numbers in practical situations

2 Superior pupils apparently can devise efficient techniques of problem solving, and they should not be taught a single, set technique All pupils should be encouraged to suggest solutions when new types of work are presented, that is sounder pedagogically than to assume that solutions must initially be presented by the teacher

Pupils of average or lower ability often have no systematic method of attacking the solution of problems Consequently it is believed that these pupils should be taught procedures to use in problem solving for without adequate guidance they may invent and acquire very wasteful uneconomical methods of work There probably is no single best way for all pupils

3 Increasing the accuracy of computation in problems by systematically organized practice exercises on number processes and insisting that all computations be checked will increase scores on problem tests by eliminating the numerous errors arising in computation

4 Exercises in careful reading of the kind included in many reading and arithmetic textbooks and in supplementary work type reading materials and arithmetic workbooks are very helpful The value of reading problems should be emphasized Requiring pupils to restate problems in their own words is a valuable check on their comprehension of the situation presented in a problem

5 Vocabulary exercises on important arithmetic terms and number concepts are essential Buswell has clearly shown the need of this type of work since many of the technical terms used in arithmetic do not appear in the materials in reading textbooks

6 Original problems prepared by pupils and concrete applications growing out of local situations and experiences are valuable means of developing in the pupil the ability to 'sense' number relations and to generalize his number concepts The teacher must make certain that essential relations are educed in such a way that the pupil sees the relations in the solution of novel problems

7 In work on various original problems that require independent study by the pupils such specific reading skills as use of the index and table of contents ability to summarize and the like are often involved These reading skills should be taught as part of the instruction in arithmetic

8 Neatness of work and orderly arrangement of solutions should be emphasized

9 Standardized progress tests and other methods of showing the pupil his improvement in solving arithmetic problems, applied at regular intervals through the year are an essential element in a well rounded arithmetic program

Similar digests of scientifically validated principles and procedures for instruction in other phases of the curriculum should be made available for teachers In all cases the supervisor should bring to the attention of the teacher the results of experimental studies of teaching and should assist the teacher in incorporating practices of demonstrated validity in

instructional procedures The limitations of this general procedure will be discussed in Chapters XVI and XVII

3 *Consider the relative value of the outcomes* In planning the instructional program due weight must be given to the relative value of educational objectives If test results show that a sixth-grade pupil is low in division of decimals, the teacher must consider whether or not time should be spent on the practice needed to secure mastery, or whether the time could be spent more usefully on some other kind of work Obviously an excessive amount of time spent on intensive drill on skills and knowledge will lead to the neglect of other important outcomes such as attitudes, interests, and appreciations and to the use for this purpose of time allotted to other subjects such as art music, literature and the like

4 *Integrate developmental and corrective instruction* It must be recognized that even though there may be well organized, efficient instruction, some pupils will have learning difficulties for various reasons, many of them beyond the control of the teacher One or more of the various factors described in the preceding chapters will be operating to produce this condition It is the teacher s problem to make a systematic study of the work of the pupil to determine the factors that are interfering with desirable progress and to take steps to bring about improvement Remedial instruction should be regarded as an important element in any well-rounded program of instruction Except in unusual cases the remedial program should be in charge of the classroom teacher rather than conducted by some teacher of a remedial class who does not have the opportunity the regular teacher has to make the necessary adjustments of instruction in all phases of class work to the needs of the individual child The responsibility for the treatment of any pupil should be delegated to one person

5 *Attack specific points directly* The more definitely the root of the specific difficulty can be determined the more effectively can the remedial program be planned A child may be having difficulty in reading because of a deficiency of the eye, such as muscular unbalance or astigmatism Any remedial program that fails to take this visual defect into consideration is likely to be futile Pupils who are having difficulty in long division may have a deficiency in subtraction which is needed in this process Practice on long division is likely to be a waste of time until this basic weakness has been corrected There is ample evidence that well directed practice aimed at specific difficulties will in most cases yield large returns In general the rule applies that the best way to overcome a specific weakness or fault is to attack that point directly The findings of educational science and related sciences such as neurology, psychiatry, sociology, and psychology, are making it increasingly possible for the teacher to apply remedial measures that will produce the desired changes

6 *Correct physical, emotional and environmental factors interfering with learning* It is essential that steps be taken from the beginning to

correct physical handicaps and environmental factors that may contribute to maladjustment Visual and auditory defects, malnutrition, and so forth must be remedied as soon as possible If the learner has a faulty attitude toward the school, a subject, or his associates, positive steps must be taken to substitute good attitudes for bad ones It may be necessary to make curricular readjustments of various kinds It may be advisable to change the instructors Unsatisfactory conditions in the home must be changed If it appears that the unwholesome influences of the neighborhood in which he lives are affecting him unfavorably it may be necessary to remove him from the immediate locality It is obvious that in the correction of all of these there must be close cooperation between the school and all social agencies concerned with the care and development of children

The effects of environmental influences on the behavior of individuals are strikingly revealed by the results of a survey of the rates of delinquency in nine mile zone areas in Chicago, as shown in table on page 551

It is evident that the nearer the zone was to the Loop District, the greater was the amount of delinquency Over a period of a generation the delinquency rate had remained constant in certain interstitial areas, although there had been a marked shift in the national character of the population in them As these groups moved out into new suburban areas their delinquency rates dropped to figures appropriate to the new environment It thus is clear that fruitful steps to reduce delinquency are either to remove the individual from an unwholesome environment or to change the local conditions that contribute to the delinquency The achievement of such a result is possible only when all agencies in the community in any way concerned with the care and development of the individual cooperate in the steps taken to bring about an improvement

It is being increasingly recognized by sociologists, psychiatrists and others concerned with various aspects of the care and development of the individual that the prevention of crime and juvenile delinquency must be regarded as a community enterprise in which the schools must exercise leadership The Gluecks[44] published a book on preventive programs which gave samples of school programs, coordinated community programs, police programs intra- and extramural guidance programs boys' clubs, and recreation programs From this mass of concrete illustrative detail the writers set forth a number of principles that should underlie preventive work Some of the more important of these principles may be summarized as follows for the benefit of the student

1 Crime prevention should take into account the evidence that most criminals show definite antisocial tendencies of attitude and behavior early in childhood

2 In most instances, children should be kept away from typical contacts

[44] S Glueck and Eleanor Glueck editors *Preventing Crime A Symposium* (New York McGraw Hill Book Co 1936) Also see their *Juvenile Delinquents Grown Up* and *Criminal Careers in Retrospect* (New York The Commonwealth Fund 1940 and 1943)

RATE OF DELINQUENCY IN NINE MILE ZONE AREAS FOR EIGHT GROUPS OF DELINQUENTS IN CHICAGO *

Group	Delinquents	Mile zone areas surrounding the Loop								
		I†	II	III	IV	V	VI	VII	VIII	IX
I‡	5 159 male school truants during 1917 27	12 4	7 0	6 6	9 8	2 8	1 5	1 2	1 3	1 8
II‡	9 243 male juveniles dealt with by Protective Probation Officers—1926	20 0	10 7	11 9	8 1	5 6	3 1	1 7	2 1	2 5
III‡	8 591 male juveniles dealt with by Protective Probation Officers—1927	17 5	9 8	11 3	7 7	5 1	3 0	2 1	2 0	2 8
IV‡	8 141 male delinquents brought before Juvenile Court —1917 24	15 3	9 1	9 0	6 2	1 7	3 5	2 9	2 9	3 7
V‡	8 036 male delinquents brought before Juvenile Court —1900 06	4 5	12 9	9 7	7 5	5 8	1 1	3 7	3 8	3 5
VI§	6 398 male offenders brought to Boys Court on felony charges—1924 26	25 1	16 3	15 5	10 1	7 5	5 1	1 7	1 8	3 8
VII‖	7 511 adult male delinquents—1920	8 5	2 1	1 9	1 1	8	6	5	1	4
VIII¶	2 809 female delinquents brought before Juvenile Court —1917 24	4 8	3 8	1 3	2 0	1 1	1 1	1 0	7	1 8

* Clifford R Shaw and others *Delinquency Areas* (Chicago University of Chicago Press 1929), pp 24 ff

† The Loop District

‡ In Groups I V the rate in a given mile zone area is the ratio of the number of male juvenile delinquents to the total aged ten to sixteen male population for 1920 the ratio being expressed in terms of the number per hundred

§ In Group VI the rate in a given area is the ratio of the number of offenders appearing in the Boys Court on felony charges during the three year period 1924 26 to the total aged seventeen to twenty mile population for 1925

‖ In Group VII the rate in a given area is the percentage of adult offenders in the total aged seventeen to forty four male population in the area

¶ In Group VIII the rate in a given area is the ratio of the number of female juvenile delinquents to the total aged ten to seventeen female population for 1920, the ratio being expressed in terms of the number per hundred

with police stations, courts and correctional institutions until more scientific and sympathetic efforts have failed

3 An experimental attitude should govern the establishment and conduct of crime prevention programs

4 It cannot be definitely concluded as yet that any one type of crime-preventive activity is necessarily superior to or should be exclusive of any other

5 Existing community agencies and institutions should be used to their fullest capacity

6 A crime-prevention program should recognize that children must have ample outlets for their energies
Trained personnel should be liberally employed in crime preventive activity

Although much good can be accomplished by whatever qualified agency in a community assumes the leadership in crime prevention, the public schools can play an especially significant rôle

The Glucks suggest that the schools should

1 Recognize physical and mental handicaps
2 Determine dissatisfactions with school curriculums
3 Unearth other reasons for maladjustment to the requirements of society
4 Discover means of making school work more attractive
5 Establish special classes or schools for children possessing special abilities or disabilities
6 Counteract tendency to an undiscriminating mass treatment of children

In a number of communities there have been established child guidance clinics that are primarily concerned with the study and treatment of behavior disorders A well trained staff makes an intensive study of all aspects of the personality of the individual, his associates and home background, with a view to locating the factors that contribute to the maladjustment After a careful consideration of the case a tentative method of meeting these needs is set up The treatment facilities used in improving the situation include the facilities of the clinic itself the machinery of the law when necessary, the home, the school professional case-working agency not connected with the school organized recreational programs and, if necessary, placement outside the home Diagnosis continues throughout the treatment and the treatment is modified whenever it seems advisable to do so

Strang has summarized the most important steps that can be taken to improve conditions leading to unfavorable personality development as follows [48]

1 Change the attitude of personnel workers teachers parents other members of the family and other children toward the child
2 Change or rearrange other elements in his environment
3 Help him to acquire certain skills and social routines that will enable him successfully to take his part in a group
4 Help him to acquire insight into a situation and to discover for himself better ways of meeting difficulties or by helping him to gain information on the basis of which to make intelligent choices
5 Provide play and other forms of outlet that enable him to work through and solve his conflicts for himself
6 Use special techniques for example psychoanalysis
7 Self guidance through goals accepted or set up by the individual

[48] Ruth Strang Guidance in Personality Development' in *Guidance in Educational Institutions op cit*, Part I Ch 7 pp 197 229

FREQUENCY OF TYPES OF RECOMMENDATIONS MADE BY GUIDANCE SPECIALISTS IN 795 CASES *

Rank	Recommendation	Boys (N = 610)		Girls (N = 185)		Total (N = 795)	
		N	Rate per Case	N	Rate per Case	N	Rate per Case
1	Adjustment of Home Situation	2 057	3 47	635	3 43	2 692	3 38
	a Social or educational work in home	912	1 50	262	1 41	1 174	1 48
	b Advice regarding methods of child training	815	1 44	242	1 30	1 057	1 32
	c Consideration of placement	229	38	88	48	317	40
	d Suggestions regarding sibling relationships	95	15	40	22	135	17
	e Interests	6	01	3	02	9	01
2	Educational Adjustment	1 608	2 61	190	2 65	2,098	2 64
	a Modification of curriculum and instruction	844	1 38	243	1 31	1 087	1 37
	b Classroom management	420	69	112	61	532	67
	c Placement and progress	245	39	77	42	312	39
	d Special individual guidance	109	18	58	31	167	21
3	Improvement of Physical Well Being	866	1 42	292	1 58	1 158	1 46
	a Specific treatments	431	70	133	72	564	71
	b Supplementary examinations	296	49	123	67	419	53
	c Operative therapy	139	23	36	19	175	22
4	Social Adjustment	612	1 05	167	90	809	1 02
	a Opportunities for adequate social relationships	318	52	94	51	412	52
	b Development of recreational and other special interests	161	27	51	27	215	27
	c Opportunity for employment	85	14	11	06	96	12
	d Special summer program	64	10	10	05	78	09
	e Enlistment of community aid	12	02	1	01	13	02
5	Miscellaneous	128	21	35	19	163	21
	Total	5 301	8 69	1 619	8 75	6 920	8 71

* Norman Fenton *Mental Hygiene in School Practice* (Stanford University Calif Stanford University Press 1943) p 414

7 *Proceed on a tentative basis and modify procedures when it appears advisable* Because we cannot be certain in most cases what the cause of a deficiency is remedial instruction must proceed on a tentative basis When the teacher has isolated what appears to be the root of the difficulty, remedial measures should be applied The correctness of the diagnosis will be shown by a resulting improvement It may, for example, appear that the reason for difficulty in a course in history is a reading deficiency If a remedial reading program results in improvement in history, the diagnosis probably was correct and the remedial program the proper one Because of the difficulty of making such a clear-cut diagnosis in many cases, owing to the effects of several factors not readily

isolated, the teacher must be prepared to alter the remedial program at any time If little improvement takes place, a new attack must be made on the problem This varied procedure adapted as wisely as possible to the apparent needs of the learner must be continued until the solution to the problem is found

8 *Secure the interest and cooperation of the learner* In all cases the teacher must make an effort to secure the whole hearted, intelligent cooperation of the learner The learner must be led through self diagnosis to an insight into the nature of his difficulty If the teacher can give him a real appreciation of the significance of his difficulty and can make clear to him the steps that are most likely to lead to improvement, a willing attack on the problem is in most cases insured Children of superior mental ability can analyze their difficulties more easily than inferior pupils can The former do not need as definite guidance as the latter Intelligent pupils can usually correct difficulties when they are pointed out to them The teacher must assign the child of inferior mental ability well-graded tasks that he can master The goals to be achieved should be adjusted to his capacity for growth From the very beginning of the remedial program the teacher should try to make clear to each pupil the improvement he is making even though it may be taking place in very small increments It is important that at all times the teacher use instructional materials and methods which fully recognize differences in the rates at which pupils learn

Measuring the adequacy of provisions for handicapped children Hilleboe suggested a procedure that may be used to aid in the measurement of the adequacy of the provisions being made in any locality for various kinds of handicapped children He canvassed a large number of investigations and then established the per cent of the population normally found for each of a number of kinds of handicapped individuals Though all will not accept these figures, they may be regarded as having high validity His standard ratios are as follows [48]

Type of Handicap	*Hilleboe's Estimate*
Visual defectives	2%
Hearing defectives	1
Orthopedic	3
Cardiac cases	6
Speech defectives	3
Lowered vitality	1 25
Tuberculosis	4 6
Epileptic	08
Mentally subnormal	4 7

The application of these per cents to the population of a single locality will enable the supervisor to determine the number of handicapped

[48] G L Hilleboe, *Finding and Teaching Atypical Children*, Contributions to Education No 429 (New York Teachers College Columbia University 1930)

children of each kind there normally would be in that place A comparison of these figures with the actual number of cases provided for will reveal the adequacy of the provisions There is of course a degree of error probable in this procedure This should be recognized in the interpretation of the results

Various kinds of schools, institutions, and agencies, both public and private, deal with these children The means used range from large state institutions to classes in the homes of the children The selection of the children and their placement in classes in which they can be given suitable care present important problems to the supervisor In some cases standards of admission have been adopted which have proven of considerable value The following standards for admission to sight-saving classes which have been approved by the National Society for the Prevention of Blindness are typical

1 Children who cannot read more than 20/70 on a standard Snellen chart in the better eye or who cannot read No 2 00 at 20 cm
2 Myopes who have more than 6 diopters of myopia at ten years of age or under
3 Children who have 3 diopters of myopia which are progressive
4 Hyperopes who have symptoms of asthenopia and whose vision in the better eye falls below 20/70
5 Children who have an astigmatism of more than 3 5 diopters and whose vision cannot be brought up to more than 20/70 in the better eye
6 Children with corneal opacities whose vision is 20/50 or less in the better eye
7 Cases of interstitial keratitis where vision is 20/50 or less in the better eye
8 Children having congenital cataracts, secondary cataracts, congenital malformation of fundus lesions where no acute condition is present, with vision of 20/50 or less in the better eye

Note 1 Any child who in the oculist's opinion, would benefit by sight saving training should be accepted, subject to the suggestions of the oculist for treatment and training

Note 2 It is assumed that these conditions exist after the proper refractions have been made

Various states have adopted similar standards of admission to classes for mentally defectives, crippled, socially maladjusted, and other kinds of handicapped children

Standards for appraising programs Crayton made an exhaustive study of the provisions for the care of various kinds of handicapped children in the states and cities of this country Wide variations in practices were found The different plans were appraised by a commission which then proposed policies for the state of Kentucky for dealing with this problem Very suggestive standards for evaluating state and local programs were drawn up The following standards for the care of crippled, cardiac, and tubercular children illustrate the criteria that were adopted for evaluating the provisions for the various kinds of handicapped children They may be applied in the appraisal of the provisions for these children in any

community Crayton's report contains similar standards for appraising programs for each of the other kinds of handicapped children Crayton's complete series of standards was used to evaluate provisions for handicapped children in the schools of New York state The results are reported in Brueckner's *The Changing Elementary School*

STANDARDS FOR EVALUATING PROVISIONS FOR CRIPPLED CARDIAC AND TUBERCULAR CHILDREN[47]

1 There should be some practical and efficient program for locating and diagnosing the needs of the crippled the cardiac and the tubercular This would perhaps include
   a A law requiring that birth records indicate the existence and type of congenital defect
   b A law requiring that the school census note the existence of obvious defects
   c School clinics
   d Traveling clinics
   e County surveys
   f Tuberculin tests and Roentgenological examinations for all children exposed to open tuberculosis and for other suspicious cases

2 Provisions should be made for the hospitalization of those cases which require it In general two types of hospital facilities have demonstrated their worth
   a A centralized orthopedic hospital supported by the state and administered either by the state or by the state medical school (This plan seems better adapted than any other for reaching cases in isolated rural communities)
   b Orthopedic facilities of local general or children's hospitals checked and approved by the state for the care of the state's patient (This plan is better in that it makes use of existing facilities and makes it unnecessary for many children to go far from home for treatment)

3 Provisions should be made for the care of children under treatment and those convalescing from operations Under varying circumstances four different types of care are feasible
   a Convalescent homes sometimes in connection with hospitals which handle orthopedic cases (approved as a means of caring for children for long periods at less cost than in the orthopedic hospital)
   b Nurses to visit children convalescing in their homes to supervise diet and care and to adjust braces (usually feasible only in or near cities and in cases where home conditions are favorable)
   c Clinics to which children are taken at regular intervals
   d Tuberculosis sanitoriums

4 The state should bear the responsibility of directing and financing, at least in part, the education of the crippled Various types of arrangements must be made the choice depending upon the situation and the physical condition of the child
   a Private instruction in the home (sometimes very unsatisfactory, but cer

[47] From Sherman C Crayton, "A Proposed Program for the Care and Education of Kentucky's Handicapped Children, Based upon Current Practice and Philosophy within the State and Current Throughout the United States" *Bulletin of the Bureau of School Service*, Vol 7, No 1 (Lexington Ky University of Kentucky, September 1934) Quoted in Leo J Brueckner and others *The Changing Elementary School* (New York Inor Publishing Company 1939) pp 231 ff

tainly better than none, although it deprives the child of youthful companionship and outside contacts)

b Bedside or class instruction in hospitals and in convalescent homes

c Special schools and special classes in public schools (usually practicable only in cities of 14,000 and over)

d State aid to assist children who wish to board in a city near a special class or school

e Provisions for free transportation to special day schools and classes for children who require it

The procedure to follow in applying these standards is simply to consider the items listed as they apply locally or to the state and to check those that are adequately provided for or are not provided for The standards for the other types of handicapped children may be applied in the same way

Sources of help on developmental and remedial programs It will not be possible because of limitations of space to discuss in any detail the many remedial and developmental exercises that have been devised In some cases there can be applied very specific corrective measures which will bring about a big improvement

There are many books which contain detailed descriptions of developmental and remedial programs in the various areas of the curriculum Excellent general discussions are included in most of the books on measurement in the bibliography at the end of Chapter VI Several volumes are devoted totally to diagnostic and remedial procedures The most useful of these are

National Society for the Study of Education *Thirty Fourth Yearbook, Educational Diagnosis* (Bloomington Ill Public School Publishing Co, 1935)

Brueckner Leo J *Diagnostic and Remedial Teaching of Arithmetic* (Philadelphia The John C Winston Co 1930)

—— and Melby L O, *Diagnostic and Remedial Teaching* (Boston Houghton Mifflin Company 1931)

Gates Arthur I *The Improvement of Reading* (Revised edition New York The Macmillan Company 1935)

Buswell G T and John, Lenore *Diagnostic Studies in Arithmetic* (Chicago, University of Chicago Press 1926)

Kelly A, and Kelley, T L *Tests and Measurements in the Social Science* (New York Charles Scribner's Sons 1934)

How to Deal with Problems of Maladjustment

Fenton, Norman *Mental Hygiene in School Practice* (Stanford University Calif, Stanford University Press, 1943)

Prescott, Daniel A *Emotion and the Educative Process*, Report of the Committee on the Relation of Emotion to the Educative Process (Washington, D C, American Council on Education, 1938)

Zachry, C B and Lighty, M *Emotion and Conduct in Adolescence* (New York, D Appleton Century Company, Inc, 1940)

The reader should consult these references for illustrations of the kinds of remedial exercises that may be useful in dealing with various kinds

of deficiencies Other sources are included in the bibliography at the end of this chapter

Case studies Below are given several case studies, describing complete diagnostic and remedial programs in reading and mental hygiene

CASE 1 AUDITORY DEFICIENCIES[48]

1 *Case history* Case 1 was struggling rather hopelessly in the second grade at the time he was examined His age was 8 5 and his Stanford Binet Mental Age 8 9 He came from a respectable family His father was the proprietor of a small radio shop

2 *Diagnosis* In silent reading ability Case 1 had an average Grade Score of 1 5 He read slowly and laboriously When he encountered difficult words he studied the individual letters and tried to sound them as he had been taught to do in a school that utilized formal phonetic instruction to develop independence in word recognition Oral reading and a precise method of letter sound translation were extensively employed Case 1 showed less than average reversal tendencies He could name the letters of the alphabet, but had difficulty giving letter sounds and blending He was unable to recognize syllables and phonograms He was likewise below the norms in the tests of giving words with a stated initial or final sound In the auditory discrimination tests he secured VI scores when his chronological age was used as a standard Tested with the 2A Audiometer it was found that Case 1 was hard-of-hearing He showed up well in the tests of visual discrimination associative learning and memory span when the words were spoken clearly and he could see the examiner's lips

3 *Remedial instruction* The pupil's trouble was partly due to inability really to participate in much of the oral instruction and partly to inaptitude for the phonetic approach A student remedial teacher undertook to introduce another approach in which visual, rather than auditory word characteristics would prevail She began by teaching the pupil to recognize a few words and to compare them with each other The words were then used in various sentences and full comprehension insisted upon Similar words were compared and the differences observed Projects in developing a dictionary and in making booklets and word lists were undertaken A First Reader was introduced and comprehension exercises were made up Typewritten sheets of additional context were prepared Words and phrases, written on slips or cards were used by the pupil to construct new sentences Words containing similar parts were constantly compared and attention drawn to these parts Instruction in searching a word from left to right for 'old friends' among the syllables or other parts was given The pupil was taught to write in manuscript A method of spelling which emphasized visual study, syllabification, visualization, and writing was introduced fairly early Occasional flash card exercises were used to emphasize recognition on the basis of general configuration

After about a month of twenty or thirty-minute periods a day the pupil began to demonstrate real ability to learn new words readily He used the general shape and the larger visual elements He began to develop ability to recognize syllables and larger phonograms and to make use of them He learned to make the most of context clues He was followed up during three more weeks, at the end of which he seemed capable of handling himself very well in second grade materials His interest in reading became keen, as a consequence perhaps of several factors satisfaction in overcoming an old difficulty, compensation for

[48] Gates *The Improvement of Reading, op cit*, pp 483 485

social difficulties due to his hearing, and a real zest for the content of books provided for him Six months later, Case 1 had a Reading Accomplishment Quotient of 104—that is, he could read 4 per cent better than the average pupil of the same mental age

CASE 2 DIFFICULTY WITH PHONETIC BLENDING [48]

1 *Case history and diagnosis* Case 2 aged 8 years and 1 month with an intelligence quotient of 99, is another instance of difficulty resulting from extensive and nearly exclusive phonetic instruction This boy showed little ability to recognize words as wholes and little familiarity with syllables and phonograms Oral reading was slow and labored The errors were varied with no marked tendency toward reversal errors The pupil knew his letters perfectly and could translate most of them into sound Unlike Case 1 this boy had no difficulty in hearing or in discriminating word sounds He secured M scores or better in the tests of giving words of stated initial or final sounds and naming letters for sounds

The difficulty of Case 2 was that he was equipped with no techniques of word recognition except letter by letter phonetic translations which he could not employ successfully His difficulty was in blending Case 2 could sound his letters but could not combine them well This appeared to be due partly to tension when he attempted to blend, partly to too slow and precise soundings of the individual letters, and partly to lack of flexibility He appeared to be trying hard to sound the individual letters and too conscious of the isolated letters to free himself fully to the task of blending them

2 *Remedial treatment* The first endeavor was to teach Case 2 to make better use of phonetic skill already laboriously acquired while broadening his equipment with other techniques He was encouraged to observe the general shape of words by means of various activities in comparing and classifying words He was shown how to slur and fuse letter sounds while studying the visual form He was encouraged to try various combinations in quicker succession of sound while studying the word form and thinking of the meaning when the word was encountered in context For some time little progress was made but eventually after skilled and patient guidance, during which he was able to rid himself of much of his acquired tension and excitability he began to adopt the suggested technique Progress was consistent although not rapid for a time but it continued until the blending procedure was of considerable help Meanwhile the boy learned to secure help from purely visual clues and from the use of syllabification

Remedial instruction was given to Case 2 daily for seven weeks and less frequently during the following two months At the beginning of the instruction, the average silent Reading Grade on the primary tests was 1 6, oral reading 1 4 and word pronunciation 1 3 At the end of the remedial program the Grade Scores were Primary Reading tests (silent) 2 7 Gates Oral Context test 2 4, and Word Pronunciation 2 2 The first of these figures is approximately equal to the pupil's mental grade Although marked improvement had been made, he was still a bit nervous and easily distressed in oral work This emotionality was probably primarily responsible for the lower scores in the oral tests and it invites continued guidance

This boy represents a case in which it might often be desirable to discard phonetic work entirely and oral reading largely for a time while making an entirely different approach in order to avoid the distaste and tension produced by the older approach Only by very skilled management did the teacher suc

[48] *Ibid* pp 485 487

ceed in overcoming the emotional stress accompanying the use of the older devices

Four Cases of Maladjustments[9]

Rated as Adjusted

Charles, aged 9 years, 7 months, of normal intelligence, was referred because of school failure, show-off behavior, and flightiness. He was the youngest of three children in a family of above average social and economic standing. The other children had always done superior work in school. Examination revealed the loss of sight in one eye and a severe reading disability. Most of the treatment, beyond remedial reading, was directed toward improving the attitudes of the parents toward him and in convincing them that the boy was not retarded in intelligence and that praise and encouragement should be used with him instead of severe punishments and unfavorable comparison with siblings. Three years and nine months later he was reported by the parents to be partially adjusted by the teacher and the guidance worker to be entirely adjusted. The father is still critical of the boy and considers him careless. However Charles is at grade for his age, likes all his work, and has recently been on the honor roll.

Rated as Partially Adjusted

Edward, aged 15 years, 5 months, of dull normal intelligence, was referred because of immature social development and school failure. The home was satisfactory from the standpoint of family relationships and economic condition. The father, however, was somewhat discouraged about Edward's continued difficulties and the mother more concerned about the boy's school failure than about his social behavior. The latter—petty stealing and truancy—occurred chiefly upon the instigation of companions. Edward himself did not want and ordinarily did not keep the articles stolen. Recommendations included thorough physical study, a change in school program from academic to vocational courses in order to utilize his good mechanical ability, and membership in the Scouts to provide more wholesome companionship. The boy showed immediate improvement upon transfer to the continuation school. When the parents finally arranged for the physical examination, however, it was found that the boy had a pituitary insufficiency, and the physician encouraged them to expect improved mental as well as physical condition following treatment. As a result they returned the boy to the regular junior high school, where he reverted somewhat to his old habits but to a less serious degree. At the time of the follow-up, eleven months after the initial study, the parents were becoming aware of their mistake in transferring him from continuation school. He was reported by teachers, parents, and guidance worker to be partially adjusted.

Rated as Unimproved

Robert, aged 13 years, 9 months, of normal intelligence, was referred because of undesirable school behavior—laziness, lying, truancy from classes, poor school work, attention-getting behavior, and extreme nervousness. Undesirable factors in the home were the somewhat strained financial circumstances and the presence of the maternal grandmother, who persistently overprotected the boy and overindulged him. The boy himself had a strabismus, only recently corrected, that had undoubtedly made school work very difficult for him, and he was unhappy about his defective teeth. Achievement tests indicated that he was up to

[9] Fenton, *op. cit.*, pp. 252-254.

his grade in school accomplishment in spite of his reported poor performance It was felt that this case would show improvement only as the home situation was improved and the recommendations emphasized the need for intensive case work with the parents and the grandmother This was attempted, but it was impossible to effect any change in the grandmother's attitude Robert has shown improvement at times but he reverts to his old habits of irresponsibility At the time of follow-up, eleven months following examination, he was reported by the parents to be partially adjusted and by the teachers and the guidance worker to be unimproved

Rated as Worse

Warren aged 12 years 8 months of normal intelligence was referred because of attention getting behavior and failure to work up to capacity in school The parents were divorced At the time of the study the boy had been living for a year with his father and his stepmother He is very fond of the latter, who appeared to be understanding and intelligent in her treatment of him Recommendations included the provisions of legitimate outlets for his dramatic urge and the enforcement of firm understanding discipline at school The follow up report twelve months later revealed that although an effort had been made to carry out most of the recommendations Warren's school work was poor, he was unable to get along with the other children and he had begun to play truant and to steal The father would like to have the boy out of the home as he apparently fears that Warren's presence may destroy the happiness he has found in his present marriage The parents the teachers and the guidance worker all considered Warren worse than at the time of the initial examination

These case studies and others that have been reported illustrate the general conclusion reached that effective diagnostic and remedial instruction not only improves achievement but also affects related emotional and personality problems Behavior difficulties tend to disappear with improvement in achievement In order to obtain these results it is probably essential that the behavior problem be closely related to the learning disability so that its removal will remove the factor causing or contributing to the behavior problem

Questions to Introduce General Discussion

1 How significant a factor in learning and instruction do you regard mental hygiene to be?

2 Is there any basis of grouping pupils that you regard as satisfactory?

3 Is it possible for the teacher to provide effectively for individual differences?

4 How desirable are hospital classes for pupils not able to progress satisfactorily?

5 What can be done to *prevent* the incidence of learning difficulty?

6 What policy of promotion of pupils is operative in your schools? Would you subscribe to a policy of uninterrupted continuity and complete elimination of non-promotion at all levels of the school? At any level? What bearing does non promotion have on child development?

Reports

1 Describe some case in your experience in which systematic steps taken to correct some fault or weakness were corrected

2 How can medical examinations be improved so as to provide data needed for diagnosis?

3 What kinds of remedial materials are available for example, in reading?

4 What guidance provisions are there in your school? How adequate are they?

5 What clinical facilities are there available in your locality?

6 What provisions are made by your schools for handicapped children?

7 Criticize the basis of grouping pupils used in your school

Written Reports

1 Select some specific weakness in some curriculum area and indicate in detail how you would proceed to correct it Preferably take some difficulty you know to exist in the case of some particular pupil Plan a remedial program applying to him

2 Make a list of remedial materials you think should be available for the classroom teacher The materials may be for some grade level or for some single area of learning

3 Compare remedial measures proposed by authors in references in the bibliography for a particular weakness To what extent do they agree?

4 Make a study of the work of some teacher and note the kinds of remedial measures she used These may include steps taken at any stage of learning to eliminate learning difficulty

5 What evidence is there that corrective and remedial work produces results?

Suggested Readings

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WALLIN J E W *Personality Maladjustment and Mental Hygiene* (New York McGraw Hill Book Company Inc 1935)

WASHBURNE, C W *Adjusting the School to the Child* (Yonkers on Hudson N Y, World Book Company 1932)

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WINSLOW C E A *The School Health Program* (New York McGraw Hill Book Company Inc 1949)

See also the bibliography at the end of Chapter VII In most of the books listed there the reader will find excellent suggestions of ways of improving learning in the various curriculum areas

XII

Facilitating Teacher Growth

This is the second of a series of four chapters dealing with the improvement of conditions affecting pupil growth and learning The first of these chapters discussed the improvement program as it relates to factors resident in pupils This chapter will discuss the improvement program as it relates to the teacher An attempt was made in Chapter VIII to lay a factual basis for the improvement program by discussing in some detail the means that one might employ in discovering the growth needs of teachers Here we wish to discuss the means of helping teachers grow in the respects already indicated in this earlier chapter Before entering upon the discussion of the means of helping teachers, we review briefly some changes that have taken place in current conceptions of this subject

SECTION I

THE CONCEPT OF GROWTH FOR ALL REPLACES THAT OF TRAINING TEACHERS IN SERVICE

Supervisors as well as teachers are learners The discussion to follow has been traditionally designated as the training of teachers in service Many things have happened in this field, however, since the authors first wrote on this subject some twenty years ago The expression "training of teachers in service" is no longer in good repute, at least, its standing is not so clear as it was some time back The expression as used by many is undoubtedly very closely associated with the teacher-centered concept of supervision which we hope now may be supplanted by a goal-centered, cooperative type of group activity in which teachers, pupils, supervisors, administrators, and all others concerned work and grow together The supervisors and administrators as well as the teachers are the learners It is readily clear that pupils are learners but not so readily clear that teachers, supervisors, and administrators are learners All work together, however, for the achievement of the purposes of education and learn in the process of doing so

Distinction made between training teachers and facilitating teacher growth The term "training in service" connotes teacher centered and

imposed supervision The teacher is *given* devices, techniques, skills, and *trained* in their use The teacher is *corrected* in his detailed techniques through *handing out* ready made procedures The modern concept holds that teachers (and all educational workers) should have *opportunities for growth* through the *cooperative analysis* of problems and through *choosing* from among several techniques or *devising* new ones based on the situation confronting the teacher Teachers (and educational workers) are not ordinarily to be *given* limited specifics but are to *develop* judgment in choosing or devising techniques which fit the situation The teacher is to be aided in studying the significant factors in the situation, in evaluating the strength and weakness of his present procedures, and in the choosing or devising of techniques There will arise within the total range of supervisory situations, many instances in which the giving out of specific procedures may be the only possible action but we 'take over' only with very definite reservations and when the situation clearly indicates the necessity of extreme action

Growth must be considered in relation to the total situation There are two quite different approaches that we would like to refer to briefly in getting under way this discussion of helping teachers grow in teaching effectiveness In one approach teacher growth is considered apart from pupil growth, in the other, the growth needs of teachers are considered in relation to the larger improvement program of which they are a part We wish here to consider the program for facilitating the teacher's growth as a part of the larger on going activity of helping pupils grow Examples of these larger on going programs are given later in this chapter The difference between the approaches does not turn upon the amount of help given individual teachers, but rather upon the approach, frame of reference, or point of departure, and upon the manner in which assistance is given The help given teachers will not be in either case accidental, but careful and systematic In the approach chosen here the program for helping teachers grow in teaching effectiveness will take its point of departure from the teachers' felt needs,—needs that arise in promoting pupil growth The program will return continuously to pupil growth for validation All educational workers participate in aiding the teacher to meet pupil needs and are in turn stimulated to growth

Teachers desire to be effective It is a mistake to assume that teachers are not anxious to improve their effectiveness As in all professional groups there are the incompetent, but these are the exception The average classroom teacher is just as anxious to provide an effective service and grow in his ability to do so as are other school officials School-board members, administrators, and teachers are all representative of the people and interpreters of the common good, each with his own peculiar function and opportunity to serve School boards and administrators just as

often fail to provide the organization, leadership, and material resources for effective teaching as teachers do to provide the service Teachers through their own efforts, their committees on standards, and other professional activities are now actively engaged in many self-improvement activities It is the function of administrators and supervisors to provide the organization, facilities, and leadership that will make good teaching and continued growth in service possible

Imposed improvement replaced by self-directed growth Although it is hoped that supervisors and administrators will facilitate teachers' growth, it is not assumed that this responsibility is solely or even chiefly theirs, as a matter of fact, the responsibility belongs first of all to the teacher There are always plenty of opportunities to learn as one does what one is supposed to do Miss Zeller[1] has very ably suggested in her article, "Teachers of Teachers," that the alert teacher will learn from those about him He will learn from the children, from other teachers, and from the community He will learn from children that kindness is not enough His learning from other teachers may be good or bad he may give up newer and better practices for conformity or he may teach others In any case he should learn to work with others What the community can teach may be meager or rich helpful or harmful What one learns will depend largely upon one's outlook We firmly believe that teachers have a responsibility in this area and that the best interests of the profession will be served when teachers see and act upon it Administrators and supervisors can help by making continued growth a possibility

SECTION 2

DETERMINING WHAT TO IMPROVE

Determining what to improve discussed in an earlier chapter Determination of what to improve was the subject-matter of Chapter VIII As was repeatedly pointed out there, one may approach the problem from the points of view of qualities of the person of mental prerequisites, of performance and of pupil growth The fact that this problem may be looked at from several different points of view and yet be the same problem has been very confusing to some persons The writers have emphasized the oneness of these approaches, certainly in so far as all aim to promote pupil growth Some educationalists prefer, however, to talk about the personality of the teacher and employ their own language in doing so Some prefer to talk about the mental prerequisites (knowledges, skills, attitudes interests, and ideals) essential to teaching efficiency, and some, of performance Regardless of where we start, we come sooner or later to performance, behavior, or action, but when we want to improve these, we turn to qualities of the person and the mental

[1] Dale Zeller Teachers of Teachers *Educational Leadership*, Vol I (March 1944) pp 342 346

prerequisites to teaching success We are here concerned with all of these as they relate to pupil growth The methods of measuring pupil growth and discovering pupil needs have been discussed at some length in Chapter VI Many of the needs of teachers will be inferred from those of pupils The outcome of studying the learning-teaching situation should be a list of pupil needs and data relative to the more important factors in the situation including those resident in the teacher One may state the improvement needs of teachers as behavior patterns to be modified, as a list of teacher traits" to be improved or as the mental prerequisites to teaching efficiency as one prefers In the discussion to follow we have assumed that teachers, supervisors, and pupils working separately or jointly will determine the specific respects in which the teachers and teaching methods should be improved

The term "teaching" will need to be viewed broadly Possibly we need, in determining what to improve, a new definition of teaching Teaching is here defined to include not only those activities immediately associated with the direction of learning, but also those associated with the large group of concomitant activities which the teacher is called upon to perform in connection with supervising extra curricular activities counseling students, working with a school staff, and living in a community We trust the reader will keep this broader definition of teaching in mind as he proceeds to what follows

The way that the teacher goes about getting done what he is supposed to get done is sometimes referred to as his 'methods of teaching Accordingly, one thing that one might improve is the teachers methods or instructional procedure But the ordinary conception of method is a very limited one covering only a very restricted list of specifics involved in doing well what the teacher does or should do in teaching Method includes, for example not merely asking questions, making assignments, and the like but the social behavior of the teacher as it relates to the pupils and other persons with whom he works Some teachers are more honest than others some are kind generous and considerate—others, self-centered and selfish some are well bred—others are not Some teachers have and some have not acquired the knowledges, skills attitudes, and ideals that enable them to live with others with a fair degree of effectiveness The teacher brings much more to his teaching than his methods of teaching in the conventional sense In fact he brings his whole self to teaching and it is with this total self that we are here concerned, particularly as revealed in behavior Therefore, we shall not attempt to draw a line between method in the ordinary sense and the teacher's personality, or his more general forms of behavior A frown a shrug of the shoulder, or a quality of the voice is as much a part of his method as using the blackboard, asking a question, or holding a panel discussion The intent of what is to follow is, therefore, to treat the teacher as a functioning whole, and include within the concept of teaching methods all forms of teacher

behavior that impinge upon the pupil directly or indirectly In what is to follow, wherever we talk about teacher activity, behavior, or performance, we are discussing method

Whether the definition of method is extended to include these essential qualities of good teaching or not is probably of little consequence, but it is important that the improvement program include these broader principles and techniques of human relationship Much of the success of the teacher will depend upon them

Balance must be maintained between specific help and discussion of general principles A curious paradox is noted when random samples are collected of teacher reaction to supervisory aid One universal complaint is that "supervisors impose their ways of doing things upon us They give us specific techniques to follow and insist that we use them" But equally widespread is the contradictory statement, "Supervisors are so vague and general in their suggestions Why don't they get down to brass tacks—tell us exactly what to do—give us useful specific directions?" Many of these statements are casual temperamental reactions and need not be taken seriously The previous experience of teachers with supervision accounts for some of the seeming contradiction A more important point, however, is involved

Teachers often criticize supervisors, professors, and textbook writers for failure to give sharply defined specific directions for classroom procedure The prescription of such specifics for random application is, however, a form of arrant quackery, particularly when made by a person remote from the scene of action Professors of education and text writers do very often need however, to illustrate their sound general principles with extensive illustrative materials drawn directly from classroom situations Teachers, on their part, need to recognize the value of principles as guides in choosing between techniques and in developing new ones Supervisory programs can in fact be far too remote, abstract, and general Programs can also be so specific and controlled as to inhibit and annoy teachers seriously

The clue is found in analysis *First,* the seeming contradictions must be viewed in the light of levels of training possessed by the teacher Untrained beginning teachers and those of mediocre or low ability will seek specifics and use them In many cases this is all that is possible Even here, however, modern methods of stimulating growth should be attempted, even if only a little The alert, trained teacher of wide experience and excellent ability will be contemptuous and impatient toward specifics handed out with no analysis of the situation The *second* point, namely the necessity for diagnosis and fitting of suggestions to the situation, is even more important The actualities of the situation when developed will determine whether the aid given to the teacher should be in the form of specific suggestions or of an invitation to study the

problem together The truth is that both general discussion and problem-solving, and the giving of specific help are valuable when used appropriately All educational leaders need to balance general and specific aids and stimuli to growth in terms of the known facts in the situation Students may well reread here the opening discussion in Chapter II on the relation of principles to techniques [2]

It goes without saying that regardless of the approach used, the specific problem which confronts the teacher or the group cannot be too specifically defined In this sense 'getting down to specifics" is always safe

Adequate background necessary for good judgment in determining needs In the cooperative frame of reference here envisaged, pupils, teachers, and supervisors are all making judgment about what to do Presumably, teachers have more skill and insight than do pupils—supervisors more skill and insight than do teachers, but as we all know, this is not always the case Besides the teachers pupils, and supervisors, there are others not so intimately associated with the situation as they who will be making judgments too, as for example, parents board members and other adult members of the community The latter however, are ordinarily not too much concerned with the more technical aspects of professional education In any case the judgments made by these various persons are not always good and the question here is how can these judgments be improved There are many things that one might do *First* of all, those who reach judgments about what to do in specific situations might be helped by understanding the framework within which judgments are made What one does in a particular learning and teaching situation will depend partly upon one's purpose partly upon the persons involved (teachers, pupils parents, supervisors and so forth) and their understanding, skills, capacities and attitudes partly upon one's system of values, standards of achievement, and other generalizations that one holds to be true, and finally upon one's ability to perceive and infer the implications of unique features of the immediate situation

Secondly, we believe that judgments about what to do should improve with experience, particularly when the results of each decision are carefully noted and there is a deep desire to improve One may learn by doing if one is willing to modify means methods, and materials to get better results

Finally, we believe that judgments about what to do in specific situations may be improved by providing appropriate background training Making good judgments presumes certain fundamental abilities, knowledges, skills, attitudes, and ideals To promote the making of sound judgments, then, one will need to make certain that there is understand

[2] Other interesting material will be found in *Current Problems of Supervision Third Yearbook* of the Department of Supervisors and Directors of Instruction (Washington D C, National Education Association 1930) Also in C H Judd *Education as the Cultivation of the Higher Mental Processes* (New York The Macmillan Company, 1936), pp 6 17 Also scattered through the periodical literature

ing of the framework within which judgments are made, that there is provision for practice in making judgments under supervision, and provision for background training in basic abilities We are here emphasizing the importance of these behind-the-scene determiners of human behavior

The sorts of background needed may be made clearer by questions such as the following What must one know, feel, and be able to do, and what sort of person must one be

1 To conduct successfully a sixth grade class discussion of intergroup relationships?
2 To help a single student reach a temporary judgment about a choice of vocation?
3 To help a group of high school students plan some wholesome social and recreational activities?
4 To help ninth grade students comprehend some complex principle of science?

It seems clear that to help with these specifics of learning and teaching, one must have considerable background

There are very many behind-the-scene determiners of human action with which teachers and supervisors will have to concern themselves Some will be summed up in the qualities of the person such as considerateness, honesty, and objectivity, and others will be summed up in the knowledges skills, attitudes interests and ideals which constitute the prerequisites to good teaching Some will be native and not acquired Some will be given in teacher training institutions, and some, acquired on the job in developmental programs such as those here under discussion One of the real problems of professional education is that of *getting relevant background essential to good teaching or that of handling* this background in such a manner that its relevancy will be seen by the individuals concerned There must be background, but the background must be pertinent and applicable

The immediate and specific needs of professional workers will be determined by the situation In the chapter on the determination of educational objectives it was pointed out that objectives can be both generalized and personalized Statements such as those reproduced above represent highly generalized summaries of professional needs We shall wish sooner or later to get down to the specific needs of individual teachers or groups of teachers in particular learning-teaching situations The needs of all teachers or groups of teachers are not similar, the needs of any particular worker in any given category are seldom very extensive In any case, they seldom run the entire gamut of all possible ills

These needs are of finite nature the needs of teachers for better assignments, better methods of approaching units, of inviting pupil participation, of providing for individual differences, of determining readiness, of conducting recitations, of directing complex working periods, of testing and evaluating, better methods of providing for cor-

relation fusion, unification of materials of guidance, better methods of improving reading, arithmetic, or spelling, and the like

Problems vary from simple and minute to complex and extensive Variation may be from a difficulty in wording questions up to a program of transition from traditional to modern teaching, from the management of some minor routine factor of classroom management up to ten year programs of curriculum development It was the purpose of Chapter VIII to discuss the means by which teachers with such assistance as is available might discover their own individual needs By rereading the summary at the end of Chapter VIII, the student may find a review of this discussion helpful at this point

Growth in meeting these needs is affected by several factors The needs as has been indicated, may relate to either (1) current performance or behavior, or (2) the determiners of, or controls over, behavior The effect of the environment, individual differences among teachers the characteristics of leadership which facilitate or hinder growth, and other factors need to be kept in mind A general classification of antecedent factors is given here as a preliminary to more detailed discussion The six categories previously used were (1) *environmental factors,* particularly those that may currently impinge upon the teacher's normal way of living and professional development, (2) *personal factors,* particularly those more stable moral, social, physical, and intellectual characteristics of people that arise from the joint effects of nature and nurture, (3) *mental factors,* particularly the specific knowledges, skills, attitudes, ideals, interests and appreciations that constitute the more pliable and educable components and immediate determiners of behavior, (4) *general states of mind,* particularly *morale* which is a great facilitator and unifier of human action, (5) *efficiency of learning factors,* particularly the factors of interest, individual differences, readiness, knowledge of progress, success, and intent to learn, and (6) *leadership factors,* particularly those that relate to the methods of leadership The list of factors here chosen for emphasis is by no means complete, but we hope representative of those that will be kept in mind by those interested in facilitating teacher growth We shall begin with a discussion of some environmental factors conditioning teacher growth

SECTION 1

ENVIRONMENTAL FACTORS IN TEACHER GROWTH

Types of environmental factors to be here considered There are many immediate and remote environmental factors that condition teacher growth There is little that can be done about the environmental factors that have influenced the teacher's past development, but there is much that can be done about those that impinge upon the teacher currently in his present setting One's environment is always a complex network of

physical social, moral, intellectual and psychological influences Space does not permit a full discussion of these influences, but five have been chosen from the teacher's immediate home, school, and community environment for brief description (1) good personnel practices, (2) good housing and home conditions, (3) favorable community attitudes, (4) a good plant and working equipment, and (5) good staff relationships

Good personnel practices Teachers are human and are decidedly influenced by the personnel practices of school systems The absence of favoritism in selecting and promoting staff members, honest efforts by the leadership to secure adequate salaries, loads, and physical facilities enhance morale and stimulate growth A heavy load does not necessarily lower morale, but an unreasonable one is sure to do so Heavy loads, often necessary under certain conditions, must of course reduce time and energy available for growth activities Security and freedom in teaching are powerful incentives to growth, the absence of these factors, a serious hindrance Freedom means, first, freedom from too many distracting extra assignments, second, freedom in choosing one's own methods, materials, and facilities from a wealth provided, and third, freedom to express one's views without fear of reprisal Efforts of the leadership to keep the record system, testing routine conferences, within limits is an aid to growth, failure to do this a serious hindrance

Good housing and home conditions Industry is increasingly recognizing that proper housing and home conditions are a powerful influence for good among the workers So it is with teachers It is difficult to be an example of our best culture when living conditions are representative of poor or undesirable elements in our way of life The denial of the right to marry and to have homes of their own is a serious hindrance to normal living conditions which in turn unfavorably affects growth Effort of the leadership to aid teachers with these problems is an excellent factor in developing morale and growth

Favorable community attitudes Communities vary greatly in their attitudes toward schools, educational practices, teachers, and the teaching profession Teachers frequently complain of the limitation placed by various communities upon their rights as persons They also complain because of the low status assigned to teachers and the teaching profession They think that some communities, too deny them the rights of full citizenship There has always been some cleavage between the school and the community over what constitutes sound educational practice Often teachers have not become integral parts of the communities which they serve Efforts by professional leadership and by the community itself to remove these unintelligent attitudes toward teachers is a basic factor in securing for the community far better schools

A good plant and working equipment What teachers can and will do in trying out new methods of teaching will depend in no small measure upon the learning aids and equipment with which they work including

audio-visual aids, libraries, laboratories, special equipment as needed and rooms suited to modern instructional practice Schools differ greatly in this respect Although teachers may lack the initiative to seek new equipment they will frequently, with proper leadership, use what is available Many of the things that teachers would like to do are genuinely limited by the lack of supplies, equipment, and special facilities The building as a whole may have a stimulating or depressing effect depending upon its character

Good staff relationships[4] The attitude of other staff members is no small factor in teacher growth Some are friendly, stimulating, and encouraging, others, lackadaisical, antagonistic and skeptical It does make a difference whether or not other members of the school staff show a friendly interest in what one attempts to do in the way of improved techniques, methods, and educational practices The standards of competency set by other workers and their desire to improve are important influences in all school situations Administrative practices too can be autocratic, discouraging and depressive or they can be democratic There is much that the administration can do to release energy Schools differ greatly in these respects

SECTION 4

FACTORS OF TEACHER GROWTH RESIDENT IN THE TEACHER AS A PERSON

Types of personal factors here discussed There are many personal qualities resident in the teacher himself—good physical and mental health, adequate mental capacity and aptness in human relations—essential to continued growth in service It is sometimes assumed that these minimal personal prerequisites for continued growth in service have been met by the selective factors operating in the educating institutions and/or by the restrictive influences of employment officials Probably too much has been taken for granted in these respects At least it is not uncommon to hear these personal qualities referred to as limitations on

[4] Detailed discussion of these factors as operative in a given situation will be found in

Robert F Cuttle and William H Burton, An Examination of Factors Stimulating or Depressing Teacher Morale' *California Journal of Elementary Education* Vol 7 (August, 1938) pp 7-14 In addition to a listing of many factors the article indicates a general technique for studying such factors one not adequately indicated in Chapter VIII

In addition to a small number of similar studies there are numerous general discussional presentations without data such as

Walter G Patterson, 'Personnel Policies as the Basis for Teacher Morale *American School Board Journal*, Vol 107 (October 1943) pp 26 27

George R Johnson Freedom to Teach The Way to Realize New Purposes in Education' *School and Society*, Vol 54 (July 1941) pp 17 19

Mary Saunders No Time for Teaching *School Executive*, Vol 64 (September 1944) pp 17 18

the professional efficiency of teachers Some of these personal prerequisites are relatively fixed qualities, some will respond to good leadership, all represent foundational materials upon which improvement programs must be built In any case, they place limitations upon what can be done in particular learning and teaching situations

Good health One of the very important factors conditioning continued growth in service is good health There is probably no other profession that demands more physical stamina and staying power than does teaching The hours are long and the work is heavy Not only must the teacher have an abundance of physical energy, but he must be reasonably free from physical defects and disease The latter is important both because of public concern over health and because of the energy losses to the individual that arise from poor health The state of the teacher's health will place definite limitations upon what can be done in any given situation

Adequate intelligence and common sense We have used the two words here together because there are different sorts of intelligence The ordinary intelligence tests measure academic aptitude Since we depend so much upon books and book learning this type of intelligence is important For teachers who have the academic aptitude and inclination to use books these may become an important source of guidance, but for those who lack this ability and inclination, such will not be the case Likewise, some teachers are very much more concrete in their thinking than others, and some are much more abstract This fact in part underlies much of the argument about abstractness and concreteness in education People also differ in practicality The mere theorist is a person who, because of training, experience, and habit is accustomed to omitting certain important types of data that need to be considered in reaching judgments about particular situations So-called practical people are likely to give undue weight to the aspects of the immediate situation to the neglect of fundamental purposes and principles People differ greatly in judgment and common sense, and this fact conditions what can and cannot be done with different persons

An abundance of energy and drive People differ greatly in vigor and drive, and these differences are important in determining what can and cannot be done in particular learning and teaching situations All too frequently, supervisors, administrators, and professors assume that we are all alike We differ greatly in many respects, particularly in the amount of energy that can be brought to bear upon the job at hand These differences arise from many partly psychological and partly physical causes Frequently a lack of drive may arise from a lack of interest, from mental conflicts, and from disintegration, sometimes, from poor health, from undernourishment, and from improper functioning of our endocrines Those attempting leadership might well consider the energy differences in people

Adaptability Either by nature or training some people are very much more flexible than others Inflexibility may arise from habit, inertia, or an uncompromising attitude, from lack of drive referred to above, or from a closed mind Age is not the only factor in adaptability Whatever its causes it is not uncommon to defend one's inertia by appeals to high principles and ideals Some people can be brought to new ways only with extreme care, others themselves see the necessity for change and make the necessary adjustment immediately with ease and poise The adaptability differences in people will limit what can be done with and for them

Aptness in human relationships Persons vary greatly in their aptness or skill in working with others Note, for example, the free easy manner with which some people work with children or adults and the halting, stumbling, offending manner of others The techniques of teaching that one may use effectively will likewise depend in no small degree upon one's common habits of acting or reacting to human situations One of the common mistakes of supervisors is to assume that because some particular technique has worked for them it will work for others The tendency, too of some people to copy blindly the manners of others is open to the same objection Within broad limits what one can do will need to be adapted to one's own peculiar assets and liabilities The behavior patterns of people, although not wholly fixed, ordinarily respond very slowly to change Fortunately they do change under skillful guidance Attention to these patterns will facilitate teacher growth

Emotional stability It is common knowledge that people differ greatly in emotional tendencies self control explosiveness and mental balance Some people are more active, optimistic, and enthusiastic than others There are also feelings of superiority or inferiority that will need to be reckoned with in deciding what to do Then there are cases of neuroticism in varying degrees of severity There are many realities of the sort here suggested that will need to be considered in planning what to do

The preceding discussion was not meant to be complete or extensive but rather suggestive of the trends of the thinking in this area There are many books that have been written on the subject The reader may find the following helpful

BURNHAM William H, *The Wholesome Personality* (New York D Appleton-Century Company, Inc, 1932)

PRESCOTT, Daniel A *Emotion and the Educative Process* Report of the Committee on the Relation of Emotion to the Educative Process (Washington D C, American Council on Education 1938)

SHAFFER, L F *The Psychology of Adjustment* (Boston Houghton Mifflin Company 1936)

ALLPORT, G W *Personality, A Psychological Interpretation* (New York, Henry Holt and Company Inc, 1937)

DOLLARD, J, and others, *Frustration and Aggression* (New Haven Conn, Yale University Press, 1939)

SHERMAN, Mandel, *Mental Hygiene and Education* (New York, Longmans, Green & Co, 1939)

Human Abilities and Learning

HORNEY, K, *The Neurotic Personality of Our Times* (New York, W W Norton & Company Inc, 1937)

PLANT, J S, *Personality and the Cultural Pattern* (New York, The Commonwealth Fund, 1937)

The improvement of personality The personal factor is of basic importance to all activities in which individuals or groups work together This is true even when an individual or group has power over other individuals or groups Democratic leadership exercised among equals is impossible without certain characteristics of personality The prime importance of this for administration and supervision has already been indicated in Chapters II and III A partial list of the characteristics of a good leader was given there The importance of desirable personal characteristics in the teacher is obvious to all observers Growth in desirable personality characteristics is, then, important for all staff members

The development of a desirable personality is possible and not unduly difficult if seriously attacked Popular interest in this is manifested by the great number of books, pamphlets, newspaper columns, and magazine articles dealing with personality and its improvement A great deal of the popular material is shoddy quackery, resulting in superficial changes of surface manifestations only The underlying structure of personality is not affected Valid facts and principles are available, however, together with reputable methods of improvement Important growth in desirable personality can be achieved

An adequate discussion of personality and its improvement cannot be presented in a general volume such as this Effort is made here to present a reputable outline in extremely skeletonized form Students are urged to read extensively in the excellent literature available It is to be noted also that personality is interpreted in somewhat different ways by various scholars in the field The account here is admittedly but one of several, though effort was made to present a consistent theory and practice

Various bases of interpretation A simple framework for thinking will be of great assistance to students attempting to interpret and evaluate various divergent pronouncements on personality[4]

[4] Though advanced discussions in this field will be quite beyond many normal school and college students, instructors and some advanced students may wish to read further The books listed are suggested as starting points most of them containing excellent bibliographies for further reference There is overlap between the groupings

Group 1

W B Cannon, *The Wisdom of the Body* (New York, W W Norton & Company, Inc, 1932)

C M Child *Physiological Foundations of Behavior* (New York, Henry Holt and Company, Inc 1924)

An individual is first of all a mechanism In the eyes of some that is all he is But he is also a biological organism, his organismal structure being superimposed on the mechanistic base Finally, as both common sense and controlled observation indicate, he is a purposive agent, capable of will and choice At least he changes his opinion and, within limits, acts as if from choice in such a way as to defy prediction on mechanistic and

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G E Coghill *Anatomy and the Problem of Behavior* (Cambridge Mass, Cambridge University Press, 1929)

J S Haldane *Mechanism, Life and Personality* (London J Murray Ltd 1914) See also reference to same author in Group 3

C J Herrick *Neurological Foundations of Behavior* (New York, Henry Holt and Company Inc 1927) *The Thinking Machine* (Chicago, University of Chicago Press 1929)

L T Hobhouse *Mind in Evolution* (Second edition, New York The Macmillan Company 1915) See also reference to same author in Group 3

J Loeb *The Mechanistic Conception of Life* (Chicago University of Chicago Press 1912)

Joseph Needham *Man a Machine* (London Kegan Paul 1927)

R B Raup *Complacency, the Foundation of Human Behavior* (New York The Macmillan Company, 1925)

Group 2

Louis Berman *The Glands Regulating Personality* (New York The Macmillan Company 1928)

W H Burnham *The Wholesome Personality* (New York D Appleton Century Company Inc 1932)

I G Cobb *The Glands of Destiny* (London W Heinemann 1927)

E G Conklin *Heredity and Environment in the Development of Man* (Princeton N J Princeton University Press 1915)

John Dewey *Human Nature and Conduct* (New York Henry Holt and Company Inc 1922)

Sigmund Freud *An Introduction to Psychoanalysis* (New York Boni and Liveright 1920)

H S Jennings *Prometheus or Biology and the Advancement of Man* (New York, E P Dutton & Company Inc 1925)

E J Kempf *The Autonomic Functions and the Personality* (New York Nervous and Mental Disease Publishing Co 1918)

C R Stockard *The Physical Basis of Personality* (New York W W Norton & Company Inc 1931)

J B Watson *Behavior An Introduction to Comparative Psychology* (New York Henry Holt and Company Inc, 1914) *Psychology from the Standpoint of a Behaviorist* (Revised edition, Philadelphia J B Lippincott Company 1929) *Behaviorism* (Revised edition New York W W Norton & Company Inc 1930)

Group 3

William Brown *Mind and Personality* (New York G P Putnam's Sons 1927)

Wildon Carr *The Unique Status of Man* (New York The Macmillan Company 1928)

J S Haldane *The Sciences and Philosophy* (London, Hodder and Stoughton 1929) *The Philosophical Basis of Biology* (London, Hodder and Stoughton 1931)

L T Hobhouse *Development and Purpose* (New York The Macmillan Company, 1913)

L P Jacks, *The Education of the Whole Man* (New York Harper & Brothers 1931)

C L Morgan, *Emergent Evolution* (London William and Norgate 1926)

G I W Patrick *What Is the Mind?* (New York The Macmillan Company 1927)

W M Wheeler *Emergent Evolution and the Development of Societies* (New York, W W Norton & Company, Inc, 1928)

organismal assumptions The individual is predictable, but he is also creative and original

Briefly, this means, first, that a man possesses a body, particularly a neuromuscular system, capable of response, and a certain few reflexes He easily acquires a large number of conditioned reflexes or habits Breakdown of any part of the mechanism affects the activity of the whole All of these are aspects of the personality, mechanistic in nature Warning should be sounded here that the student be not misled by the brevity of this and following paragraphs into thinking that this simple statement disposes of the problem Undue simplification is dangerous, but simple statements of this extremely complex process are all that can be given in this volume

Second, it means that man possesses the organs and functions of a living organism He must carry on the processes leading to survival and reproduction The fundamental drives of anger, fear, love, and sex operate and are vital components of his personality The functioning of his endocrine glands is so important that a whole literature has sprung up around their relation to personality Disease and injury affect the personality through effect upon the organism The innumerable acquired loves hates, and fears are also factors

But third, man is not merely a mechanism at the mercy of stimulus and response or an organism controlled by heredity and environment He can—and this is most important—choose, examine, and manipulate causes deliberately using them to achieve his purposes Under this intervention of conscious analysis and choice, the mechanistic cause becomes a means and the effect becomes a consequence of deliberative thinking and action Man is a seeking choosing creative being He is self conscious and aware of himself Any account of personality must take into consideration the incalculable factors of inherent variability, and of will and choice operating in purposive behavior, and the further effect of this behavior on the personality In seeking his adjustments the individual engages in equal and reciprocating intercourse with other individuals and with the world He affects other individuals and the environment and these in turn affect him Instead of being wholly bound by his environment, he changes and produces environment with far-reaching effects on his personality He is a social-moral being

Personality is affected by an individual's inherited mechanism and functions, by his organismic nature, by his creative, purposing ability, and by the effects of environment upon all of these

Those enamored of the mechanistic view lean toward the method of trait analysis, the listing of many traits, and the treatment of them statistically as if they were discrete parts of an operating mechanism This type of thinking consciously or unconsciously operates in many discussions of the rating of teachers

Those regarding organismal nature as dominant interpret personality

in terms of "instincts," racial drives, urges, appetites, etc Here we find emphasis on the sublimation of sex and anger, bringing them to heel in the service of the organism The Freudians go to the extreme of catharsis through free expression, whereas others argue for intelligent and rational repression or suppression The development of various desirable "drives" is important As indicated above, glandular action and disease are scrutinized in their relation to personality Traits are described in terms of behavior reactions and, adequately delimited, are open and susceptible to statistical treatment and practical discussion

The third group stresses the uniqueness of the individual growth and development of ideals and standards the growth of judgment and reflective thought, and the effect of environment The variable and creative aspects are regarded as important

Despite extremely clever arguments interpreting personality on one or another of these levels, it seems intelligent, in the absence of complete final data, to examine all three levels in interpreting this factor, so important in our lives Let us summarize briefly

1 The individual is a mechanism As such he is a space time energy pattern susceptible to scientific analysis As in all mechanisms the parts are simultaneous and function in one direction The principle of explanation is cause and effect
2 The individual is a biologic organism As in all organisms the functions of the parts are determined by the life function of the whole The function of one part may be taken over by another These parts function in two directions The principle of explanation is heredity and environment
3 The individual is a purposive agent a social moral being He is engaged in reciprocal response with other individuals and with the outside world in seeking adjustment The principle of validation is intelligent purposing

With this all too brief, and perhaps rather abstract, framework for guidance, let us examine various statements as to total personality and separate traits

The personality is an organic whole, not a collection of "traits" The general principles of modern biology and psychology not to mention the broad trends in philosophy, stress the importance of the living whole in contrast to a summation of parts A personality is not the sum of a large number of discrete elements, it is a functioning whole [5]

Confusion between whole and part widespread in common discussion Common, everyday use of terms in this field shows either serious misunderstanding of meanings or great carelessness First, the word *personality* is widely used in everyday conversation and in some more serious discussions when actually but *one aspect or characteristic* of the total personality is meant The single "trait" is often a striking but relatively

[5] Discussion is confined to the normal personality, no reference being made in this brief summary to disturbances or derangements within a personality or the more serious schizophrenia, i e split personality

unimportant aspect of a total personality A girl utterly lacking in seven-tenths of the elements of mature personality is often said to have a 'fine personality" when what is meant is that she is merely pretty, or vivacious, or active in social affairs In the business world *personality* is used when the reference is to extreme social polish, tact, great ability to manage men, to salesmanship, to undue aggressiveness or impertinence, and so forth Certain savants possessing most elements included in mature, balanced personality of the highest type are sometimes referred to as having poor personalities when what is meant is that they lack affability, do not talk the vacuous nonsense of the day, refuse to be interested in trivial concerns which 'made a good newspaper story" The obvious stupidity of much everyday discussion of "personality" should have long since indicated that there was incoherence or irrelevance somewhere, but the average citizen is not ordinarily interested in exactness of terminology

Second, a tendency opposite to that just described is encouraged by the application of methods of activity or job analysis which gives a picture of personality as made up of scores, even hundreds of 'traits' It is quite common to see lists of these desirable and undesirable traits compiled by writers advising young people and upon rating cards for teachers or commercial employees An analysis of 209 teacher-rating cards revealed a list totalling twenty-nine major items[6] with fifty sub terms and a total number of mentions well in the hundreds When it is considered that the terms used are subjective and largely undefined, the chaos is even greater If such summaries were in fact reliable, no one could begin to understand personality, a complexity of myriad aspects It is doubtful, however, if analysis as applied to mechanisms can be applied in like manner, if at all to organisms The natures of the two are different As will be shown briefly later, analysis suitable to personality research is a more arduous task than the mere listing of characteristics Rating-card lists as they stand are reckless arrays, indiscriminate conglomerations of symptoms, fundamental attitudes, sheer notions, commonplace designations including many noncomparable items Such an approach would give us a "rag-bag theory of personality Present trends indicate that the fundamental aspects of personality are very few These rating card trait lists when compiled with discrimination and when used by competent observers do have a value as will be shown later Published without explanation, minus strict definition of terms, and used without understanding they engender much fallacious thinking

Illustrating a more reputable view of whole and part The chief error illustrated in the foregoing paragraphs is the belief that arbitrarily defined traits—ranging from *sincerity, initiative, resourcefulness,* and *judgment* through *tact, enthusiasm, cooperation,* to *neatness, docility,* and

[6] A S Barr and Lester M Emans 'An Analysis of Teacher Rating Scales *The Nation's Schools,* Vol 6 (September 1930) pp 60 61

thrift—are entities, basic elements of the personality Some of them are, and some are not To be a trait, an item should be established on rational grounds or should be statistically demonstrable as an independent variable and should be persistent Most items in trait lists are mere symptoms, indications, clues to the presence or absence of underlying understandings and conduct attitudes which are, in fact, the genuine elements of personality A simpler way to say the same thing is to point out that *initiative, resourcefulness, honesty,* as commonly used, are but colloquial names used to designate and describe certain types of observed reaction These actions, dubbed honest or dishonest, resourceful or imitative, as the case may be, are indications of the functioning or failure to function of fundamental ideas, values, native intelligence, of training and discipline, etc One or two simple illustrations, even though very briefly outlined, may make this clearer

A man returns a purse containing a considerable sum which he has found in the street Every one then speaks of him as being *honest,* as if the honesty were a characteristic like blue eyes short stature, or quick reaction time What is really meant is that the action may be classified as honest Instead of saying that the behavior may be classified as honest or that the man acted in an honest manner we make a natural mistake encouraged by careless language and say that it is the individual who is honest This, of course, is not serious if understood, and it serves common intercourse satisfactorily But when it leads to the attribution of "honesty" as a positive something in the individual's make up, thoroughly muddled thinking ensues There is no such thing as "honesty," except as the name used to describe actions The true personality elements here are probably (1) systems of ideas concerning the nature of property (2) sufficient intelligence to distinguish between *meum* and *tuum,* and (3) an attitude of desiring to act in accord with the right The latter factor in some cases might not be conscious or analytic but the result of training These items, not "honesty," are the elements of personality in the individual At the risk of being repetitious, we may say the individual is not honest in the sense that he possesses some trait characteristic, or mysterious personal attribute known as honesty There is no such thing He is honest, that is, acts honestly, because he has acquired certain understandings (ideas) and values, which are the fabric alike of personality and of civilization, and has the intelligence to operate these ideas and values When these are present and functioning, we call the resultant behavior *honest* When absent or not functioning, we call the behavior *dishonest* A further absurdity in thinking of honesty as a positive attitude or power is seen in the fact that the actions of an individual may be classified as honest in certain fields and cases, though quite dishonest in others This is usually, though not always, a question of judgment or discrimination (intelligence) for the better types of individual, and of values and training for the less mature The more generalized one's concepts and habitual

modes of reaction are, the more nearly one's actions come to being always honest, and vice versa

Similarly, individuals who steal, lie, and cheat, do not do so because possessed of a characteristic known as *dishonesty, immorality, untruthfulness* Depending upon cases, they do so because, (1) they do not have the intelligence to see consequences of the act, or (2) knowing the consequences, they do not have the intelligence to see they cannot escape those consequences Put positively, this last means they think they "can get away with it," which is usually an error in judgment! Still others (3) knowing they *can* and *will* get away with it, do not possess such values (standards) and discipline as enable them to resist temptation Some more primitive mentalities yet do not understand the nature of property, the values of truth, the value of confidence engendered through playing fair Individuals who steal and cheat do so because they are not strong enough to solve their problems otherwise, or because their personalities are underdeveloped either through native inability or lack of training

If the basic elements in personality can be in fact thus reduced to understandings, appreciations, attitudes, and patterns of behavior which are somewhat even if not absolutely, consistent, the relationship to the curriculum becomes clear It is quite possible to develop personality, or character, or "honesty" by providing for the experiences leading to the desired understandings, ideals, and patterns

An illustration of a positive characteristic shows the same susceptibility of reduction to other and basic elements Resourcefulness, like honesty, is often referred to as if it were a fundamental attribute of the individual There is no such thing as *resourcefulness,* though certain acts may be called *resourceful* and may be regarded as indicating the presence of fundamental personality elements In this case these would include (1) native reaction time, (2) trained alertness of attention, (3) wide training in the field (4) long experience with occasions demanding resourceful behavior, etc As with honesty, individuals may be marvelously resourceful in one field and hopelessly naive in another

The effect of environment on personality cannot be overlooked The material and social factors which surround an individual exert an important influence upon personality and behavior A teacher is placed in congenial surroundings, given work to his liking, treated with respect by superior officers, given credit for suggestions and opportunity to use his own judgment Under these circumstances the teacher eagerly furthers the purposes of the organization of which he is a member, carries out the policies, performs experiments, makes suggestions, and voluntarily assumes responsibility He is rated highly by superiors on *cooperation* We may assume for the moment that the error is not made of regarding this as an attribute but properly as a name for actions performed, the true personality elements being intelligence and certain concepts and attitudes For the moment we are on the trail of another aspect of the

problem, namely, the influence of conditions Let us now assume a change, involving a new chief who is arbitrary and arrogant, who enforces petty regulations, who steals suggestions from co-workers The competent teacher of mature personality will try to cooperate until stopped by rebuffs, increased load, and threatened loss of respect She settles back to routine work, dropping voluntary projects, doing what is to be done but without spirit The new chief rates her way low on *cooperation!* Obviously the crucial thing here is the working conditions both spiritual and material, supplying a further clue to the interpretations of personality The operation of fundamental personality attributes, as revealed by actions, is vitally affected by the situation in which they are exercised A study of factors conditioning personality is as important as that of the attributes themselves, and was discussed briefly under morale

The analysis of "traits" is of considerable practical value Bearing in mind the cautions just expressed in preceding paragraphs, the analysis of sharply defined "traits" or characteristic behaviors may be undertaken as a preliminary to programs of improvement and growth It is true also that observations or "ratings" are ordinarily affected seriously by the nature of the trait rated, by the type of individual being observed or rated and by the natural biases of the rater Rating scales properly defined and used by trained observers are however contrary to popular opinion, reasonably reliable Dr Goodwin Watson [7] cites six or more studies showing this, and others are available In fact, he says that apart from rating scales and physiological measures few if any of the 'tests' of personality traits, character, etc, are free from fakability After pleading guilty himself, he scores sharply the tendency to publish studies in the field with a carefree disregard for considerations of reliability and validity Franzen and Knight [8] state that some of the overlap revealed by correlation studies can be eliminated by critical definition and trained raters An interesting summary of studies on 'originality' by Cleeton [9] shows that the trait is not sufficiently defined in most studies as does also a study by McClatchy [10] The characteristic of personality or behavior control—be it

[7] C B Watson A Supplementary Review of the Measurement of Personality Traits, *Journal of Educational Psychology* Vol 18 (February 1927) pp 73 87

[8] F B Knight and R H Franzen Pitfalls in Rating Schemes *Journal of Educational Research* Vol 12 (April 1922) pp 204 213

[9] Glenn U Cleeton Originality *Journal of Abnormal and Social Psychology*, Vol 21 (October December 1926) pp 301 311

[10] V R McClatchy A Theoretical and Statistical Study of the Personality Trait Originality as Herein Defined ' *Journal of Abnormal and Social Psychology* (October December 1928) pp 379 382

W W Charters and Isadore B Whitely 'Summary of Report on Analysis of Secretarial Duties and Traits *Service Bulletin* No 1 (New York National Junior Personal Service, Inc 1924) Contains excellent concrete descriptions of acts indicative of originality initiative etc

W V Bingham *Personality Estimate For Prospective Manager in Industry* (Pittsburgh Pa, Carnegie Institute of Technology)

Glenn U Cleeton and F B Knight, The Validity of Character Judgment Based on External Criteria *Journal of Applied Psychology*, Vol 8 (June 1924)

understanding, attitude, appreciation, ability, skill, tendency, or what not—must be sharply and clearly defined so as to be recognizable by competent persons The behavior patterns whether studied directly or as illustrations for the controls must also be defined and illustrated Allport [11] quotes Symonds as saying that since we are never sure of the existence of traits, nor of their definition, we should concentrate on reliability, and let even validity await its turn Several studies show, as indicated above, that given (1) an adequate definition, and (2) training in observation of behavior, raters manifest an astonishing ability to agree on manifestations of the trait as defined Programs for the improvement of the "trait" or of the behavior pattern can then be undertaken

Definition of personality It is evident from the foregoing that we must forget the trivial and fragmentary meaning ascribed to this word by the ordinary usage of business men, lecturers, and the "man in the street" An adequate account would necessitate an encyclopedic treatment of human physiology and psychology Therefore, we must be content with brief summary statements, fragmentary as they are, since they represent the best thought of those working in the field At the close of the chapter a composite statement will be attempted

Burnham opens his own outstanding account thus [12]

To attempt any account of the different factors that make up human personality is rash in the extreme and yet in all practical social functions in all co-operative industrial and business occupations in politics education, and morals we refer every day multitudes of times to such factors as intelligence conscientiousness judgment egotism, altruism, and the like, in our companions and acquaintances

•

Some day we shall probably have a scientific characterology as Allport [13] has suggested that will give an analysis of the different traits of human personality and an account of the conditions of the development of each Such a science would make possible tests of each personality trait and classification according to the development of each For this at present no adequate data are available Many extended scientific investigations of the concrete traits must be made before such a science is possible

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W H Hughes 'Refining Estimates of Personal Qualities' *The Nation's Schools*, Vol 17 (February 1931) pp 55 60

P M Symonds An Analysis of Tact, *Journal of Educational Research*, Vol 21 (April 1930) pp 241 254 Fine illustration of analysis Admittedly subjective but of value Not only demonstrates a method but shows that 'tact' is not always desirable and that situation greatly affects functioning of habit system Excellent for similar report by class

[11] G W Allport, 'What Is a Trait of Personality?' *Journal of Abnormal and Social Psychology* Vol 25 (January March 1931) pp 368 372

Morton Prince Why We Have Traits—Normal and Abnormal The Theory of Integration of Disposition, *Journal of Abnormal and Social Psychology*, Vol 33 (January-March, 1929) pp 22 23

[12] Burnham *op cit*, pp 22 23

[13] G W Allport Some Guiding Principles in Understanding Personality' *The Family* (June 1930) pp 124 128

Other authorities would differ as to the possibility of a purely scientific treatment of personality because of the intrinsic variability of human behavior and the unique nature of individuality

Burnham quotes with approval the following from a German writer [14]

> the personality represents the total psychophysical organism, both physical and mental The mental personality embraces the total mental capacities and tendencies that are influenced by education and critical experience as well as by physical conditions and processes Thus he designates every activity of man as a function of his personality—all such characteristics as his manner of behavior, his rhythm of activity, his temperament and tendencies

More compact statements are to be found throughout the rapidly growing literature of which two samples may be given here Morton Prince,[15] for long an authority in abnormal psychology feels that personality is made up of, "sentiments, ideals, more complex habits, fixed acquired beliefs, prejudices, likes and dislikes, accepted ethical and social codes of conduct, aspirations and enduring desires, innate urges (cravings impulses, appetites, etc)"

He goes on to say that some of these are obviously innate, others acquired, that they may be organized into systems of ideas or of sentiments and that some are obviously secondary others primary

Similarly, Allport [16] believes that personality will be found composed of traits classifiable as (1) intellectual, (2) temperamental (3) volitional or kinetic (4) esthetic, and possibly some others He mentions in passing the inadequacy of the old four-fold classification of temperaments indicates the complex nature of volitional factors and the influence of environmental circumstances A more explicit definition and discussion of "traits" will be given shortly

The principle of integration However different schools may vary in stating the components of personality, they all agree on integration as an indispensable characteristic

On the mechanistic level integration means coordination in operation resulting in successful performance Certainly, part of any personality is an orderly, efficient, bodily mechanism

On the organic level we have what was probably the original use of the term *integration* the proper functioning of those processes by which organisms maintain themselves and survive The terms *self preservation, survival, reproduction,* are commonplace *Health, strength, vigor* are indices of integration here

Integration in an intelligent, purposing agent, means sanity or wholeness of mind That is, the various characteristics, urges, powers, abilities are fused together so that fundamental unity is achieved This makes

[14] Burnham *op cit*, p 658

[15] Prince, *op cit*

[16] G W Allport 'Personality and Character' *Psychological Bulletin*, Vol 18 (September 1921) pp 441 458

possible the coordination of ideas and impulses, the control of strong urges and appetites, the ultimate resolution of conflicts through intelligent choice, absorption and coherence in pursuit of a chosen and worthy purpose

Courtis phrases it thus [17]

> An integrated personality is one which is fully "developed", which can participate effectively in social life because he has built into his own character by the assumption of responsibility and the exercise of choice in terms of life values, desirable controls of conduct, which has definitely considered the problems of economic, political, social, and individual life, and acquired from his consideration a sense of responsibility for social as well as individual progress

Obviously there are differing degrees of integration and uneven development of various traits Minor conflicts and inconsistencies do appear, however, that there appears to be a fundamental tendency toward integration may be seen in the epoch-making neurological research of Lashley [18]

> In working with animals and human patients I have been more and more impressed by the absence of chaotic behavior which we might expect from the extent and irregular form of the lesions
>
> This unity of action seems to be more deeply rooted than even the structural organization There may be great losses of sensory or of motor capacities, amnesias, emotional deterioration dementia—but the residual behavior is still carried out in an orderly fashion It may be grotesque, a caricature of normal behavior but it is not unorganized

The foregoing was taken from studies based upon subjects under experimentation or suffering injury or disease to brain tissue In another discussion he states [19] "There is not a summation of diverse functions, but a non specialized dynamic function of the tissue as a whole"

The development and modification of personality As stated above, personality is often regarded as non modifiable or modifiable only with great difficulty however, much random everyday observation clearly indicates that this is not true Modern research is clear in indicating the possible means of personality development The wide dissemination of the so-called "bond theory of learning was detrimental in that it led to emphasis on the conditioned reflex as a method of development This would sadly limit personality, emphasizing the lower habitual reactions

[17] S A Courtis, 'Reading Between the Lines in the *Twenty Sixth Yearbook* of the National Society for the Study of Education (Bloomington Ill Public School Publishing Co , 1926), pp 94ff

Ira S Wile The Bases of Personality Adjustment,' *School and Society*, Vol 34 (October 31 1931) pp 584-588

L Thomas Hopkins, *Integration Its Meaning and Application* (New York, D Appleton Century Company Inc , 1937) Extensive detailed discussion

[18] K S Lashley, Basic Neural Mechanisms in Behavior," *Psychological Review*, Vol 37 (January, 1930) pp 1 24

[19] K S Lashley *Brain Mechanisms and Intelligence* (Chicago University of Chicago Press, 1929) p 176

and minimizing the all-important principle of integration and neglecting the complex higher units Recent neurological research rendering the "bond theory" untenable will eventually rectify this A seemingly opportunistic or superficially hedonistic philosophy of life and of education stressing the more primitive types of pleasure and displeasure, satisfactions and dissatisfactions as the crucial factors in learning have distracted attention from the importance of discipline, effort of will, intellectual apprehension of right and duty, and their accompanying high level satisfactions as factors Certainly satisfactions, likes, and dislikes are important but no more so, if as much so, as the contrasting factors noted

The testimony of both general writers and of investigators is clear Personality is modifiable, and its improvement may be made the object of conscious attack Methods and results will vary with individuals and with traits We may examine first an extensive case study, and second a general summary of guidance

Referring to an excellent study by Sister Mary Aquinas McLaughlin [20] we find the means noted below used to study and modify the two traits, ascendance and submission Diagnosis and modification for improvement were carried on through personal interviews of an organized nature the application of analytic scales, and the individual preparation of remedial charts The cooperation and assistance of the subject's associates was secured Insight into the problem was fostered through selected general readings and analogous case studies As far as possible physical handicaps, particularly speech difficulties, were corrected, similarly, environmental factors were removed

After a period of time clear evidence of definite modifiability was derived The devices differed in power between the traits and between the various individuals in the study Development was more difficult at the upper levels but none the less present

Based on many such case studies and upon the opinion of general theorists, the following tentative summary may be presented

SUGGESTIONS FOR THE IMPROVEMENT OF PERSONALITY

1 Define personality particularly the characteristic you wish to eliminate or develop
2 List as adequately as possible the specific objective manifestations of the given characteristic, or of its absence
3 Perform honest analyses in terms of these definitions of behavior indexes
4 Attempt to apprehend the reasons (understandings, ideals, and attitudes) for the value of such conduct, and then rather consciously attempt to grow into the desired attitude and behavior Seek experiences toward this end
5 Seek advice from friends and from those who are indifferent Observe and imitate good models

[20] Sister Mary Aquinas McLaughlin *The Genesis and Constancy of Ascendance and Submission as Personality Traits* University of Iowa Studies in Education Vol 6 No 5 (December 1 1931) pp 86 87

6 Study physical conditions and immediate environment for possible hindrances or modifications, making such changes as are possible
7 Secure an understanding of, and consciously adopt what is known as, the objective attitude in the whole matter Secure understanding of and attempt to avoid rationalization, wishful thinking, and other forms of magic
8 Believe in the worth of one's self and of one's task in the world, noting also that a variety of interests should go with devotion to one major purpose
9 Understand that genuine effort and persistence are necessary No hocus pocus nor mumbling of incantations will achieve the difficult change in one's personality

The characteristics of desirable personality More and more one is forced to the conclusion that the essentials are not numerous, as would be implied by most interpretations of trait lists As indicated in the foregoing pages the few essentials include a good bodily mechanism and adequate native intelligence With the full implications made explicit, personality could be epitomized in the ancient statement, "A sound mind in a sound body" There is a meager list of inherited automatic responses a few racial drives, a few emotional reactions By far the largest part of complex human personality is made up of acquired beliefs and attitudes concerning the world and man, acquired values, and tendencies to act in accord with those values

Remembering that characteristics of personality will cover all levels, remembering particularly that the uniqueness of individual personality is paramount remembering finally that "personality" should be individual and not generic in its reference, we may venture a tentative summary The general major items here indicated can each be broken down into lists of understandings ideals and attitudes These, in turn, are susceptible of treatment in the course of study Experiences designed to develop them may be provided in the curriculum

1 First and foremost may be listed bodily *health* or physical well-being Not only do ordinary everyday activities necessitate this but enthusiasm good spirits morale or optimistic outlook enabling continuous performance of one's duties all depend upon a good physical basis

This means first that the individual is possessed of knowledge about care of the body habits exemplifying this knowledge, and a desire to employ these habits This could be amplified interminably into details of personal hygiene of the nervous system, the respiratory, digestive, and excretory systems It means, second avoidance of disease and injury, or when these are inescapable, intelligent effort to avoid permanent untoward consequences It means, third absence of such physical defect or deformity as would seriously interfere not only with physical functioning but with emotional and intellectual attitudes and efficiency

2 Second may be noted desirability of adequate *native intelligence* There should be balanced mental development including habits and skills of attention, good judgment, memory, imagination clear perception, ability to analyze, organize, and present the results of critical thought

3 Third *emotional balance* and tranquillity are important That is, it is

important that one have what is commonly called a disposition which is cheerful and optimistic This involves control, training sublimation of racial drives into any number of acquired drives Specifically it means control of anger jealousy, etc, the development of a sense of humor, and perspective

4 *Integration* of the whole physical and mental individual has been stressed continuously It is interesting to note that 'health' comes from a Saxon word meaning "whole" The desirable personality is whole balanced, integrated This is characterized by euphoria on the physical, and by a sense of reality on the mental side Professor Burnham phrases it thus [21]

> The wholesome personality is characterized by a sense of reality, of validity, and of security This is comparable to the euphoria that accompanies a condition of complete physical health An individual who lacks this sense of personal health has a sense of unreality of insecurity and apprehension that may at times be alarming

These fundamentals may be supplemented by a number of functional attitudes and abilities which enable the personality to function and which themselves are aspects of the personality

A The following fragmentary list is illustrative of desirable intellectual characteristics

(1) Respect for another's point of view the ability and willingness to weigh and understand the present position status and motives of the other fellow' any one with whom one must deal
(2) Knowledge that any worthwhile attainment in the world necessitates serious training arduous effort and persistence disbelief in getting by
(3) An adequate knowledge of the immediate and remote goals of life, and particularly of one's work in life
(4) Ability and willingness to become absorbed in one's task
(5) The objective attitude, willingness and ability to face the facts, refusal to waste time arguing with the inevitable
(6) Belief in an orderly world, entailing consequences from causes and responsibility in agents
(7) A sensitive curiosity concerning the nature of things
(8) The habit of delayed response, involving the suspension of judgment, weighing of further data etc
(9) Belief in the evolutionary, experimental nature of the world and of life

B The following list of 'conduct attitudes" proposed by [22] Dr H C Morrison, even if incomplete and tentative, is illustrative of the desirable values and ideals to be included in the personality The values which should be found are those which clearly further the right or the good in the long run There is of course vigorous, almost violent, controversy over what is good or right, much of it honest but much of it selfish sophistry Among careful thinkers of wisdom and insight there is considerable agreement concerning ideas of duty and responsibility which are manifestations of values As stated, Dr Morrison's list is an admirable illustration of attitudes based on recognition of certain values As attributes of personality those attitudes constitute functioning conduct controls

[21] Burnham *op cit*, p 674 See also Gardner Murphy, Lois B Murphy, and T M Newcomb, *Experimental Social Psychology An Interpretation of Research upon the Socialization of the Individual* (Revised edition, New York, Harper & Brothers 1937)

[22] H C Morrison *The Practice of Teaching in the Secondary School* (Revised edition, Chicago University of Chicago Press), Ch 20

On the higher levels these involve conviction plus a tendency to act in accord therewith On the lower levels reactions may be habitual rather than reasoned responses Professor Morrison's penetrating and highly stimulating discussion may well be made the subject of a class report There is overlap with the preceding list of understandings

(1) The acceptance of deferred satisfaction
(2) A sense of the consequences of one's own actions
(3) Altruism
(4) A sense of fair play
(5) A sense of property rights
(6) Spirituality in the sex relationship
(7) Right acceptance of criticism
(8) Acceptance of the value of cooperation
(9) Fidelity to promises
(10) Obedience to constituted authority
(11) Sustained application, capacity for hard work effort
(12) A sense of duty
(13) Willingness and ability to assume leadership
(14) Fortitude
(15) Punctuality

But what has become of the long list of "traits," hundreds of them, ranging from *originality* and *initiative* to *neatness* and *docility*? As indicated earlier, these are names for actions which in turn are based on the more fundamental aspects of personality The foregoing is a tentative and beginning attempt to indicate the nature of these and to point out lines of future thought for the student

For purposes of practical intercourse and ready use we will doubtless continue to use the common trait names found in all popular discussions, rating cards, and check lists, and hallowed by long usage As shown earlier, such use can be made highly reliable when definition is clear and judges trained The fact that such trait designations are probably not valid at all does not detract from carefully controlled practical use It is important, however, that every one fully understands what is being done in so using these common and technically unjustified terms

The chief emphasis in all this is on definition We must define sharply and know whereof we speak The desirable traits for the teaching personality are the desirable elements in the personalities of mature, competent men and women anywhere in the world They are the desirable components in the characters of ladies and gentlemen wherever found

SECTION 5

MENTAL FACTORS IN TEACHER GROWTH

Types of factors here considered We have described in the immediately preceding portion of this chapter certain personal and environmental factors that facilitate teacher growth Besides these general personal and environmental factors in growth, there are many specific knowledges, skills, attitudes, ideals, interests, and appreciations that condition growth

These, for lack of a better term, were referred to in Chapter VIII as the mental prerequisites to teaching efficiency In a sense these mental acquisitions are the product of each teacher's own peculiar abilities functioning in the environments that have impinged upon him through his past developmental history Taken at any given time, however, they constitute very definite controls over what can be done to facilitate teacher growth We plan to consider here three types of mental controls (1) some attitudes that facilitate teacher growth (2) knowledge factors in teacher growth and (3) habits facilitating teacher growth

Some attitudes facilitating teacher growth There are many generalized attitudes that facilitate teacher growth Some of these will be found in one's philosophy of life, some in one's attitudes toward children and toward one's peers, and some in one's attitudes toward one's occupation We wish to discuss here some of the attitudes closely associated with teaching itself that would appear to facilitate teacher growth We wish to discuss particularly the importance of the teacher being convinced of the worth-whileness of teaching, and of her desire to improve in service

Teachers must be convinced of the importance of teaching Unfortunately, this is not the case for large numbers of teachers today, men and women alike It is a second, third, or even last choice with many Basically, the social order of which we are a part is responsible for this condition first, because of its attitudes toward teaching, second, because of the socio physical environment provided for teachers in school home, and community, and third, because of the financial rewards provided teachers Teachers and supervisors, too, have helped perpetuate these conditions, first by too frequently treating the financial rewards of teaching as the sole and important condition to effective work second by their very limited concept of teaching as classroom instruction in the school subjects, and third, by isolationism in education, the divorcement of the school from the community and lack of teacher community contacts The problem is (1) to get teachers interested in teaching, (2) to get teachers who see the rewards of teaching in their broader ramifications and (3) to get teachers who are willing to exemplify newer conceptions of the teacher at work But first of all, teachers must be convinced of the importance of teaching

Teachers must desire to improve Teachers must not only be convinced of the importance of teaching, but they must desire to improve Three conditions help to develop a desire to improve (1) convincing evidence that the situation needs improvement (thus, one reason for the continued and careful measurement of pupil growth) (2) convincing evidence that the situation can be improved (many teachers have long ago convinced themselves that factors in the situation beyond their control make improvements impossible), and (3) convincing evidence that the situation can be improved within the time, money, and energy expenditures that they wish to make This last factor is one of the most potent in limiting

what teachers will do Unfortunately, many philosophers and researchers are not realists All too frequently they operate (or reason) as if we were in a world of unlimited time, money, and energy There are many things we might like to do if time, money, and energy were boundless, but practically and realistically they are not Most teachers are willing to work when they can see results—results achieved with reasonable expenditures of time and energy On the other hand we must not hide behind the "no time" complex

There must be a willingness on the part of teachers to try new ways of doing things Teachers have been fooled or misled so many times by supervisors that many will be too skeptical to cooperate readily in new improvement plans This statement in no way denies the fact that they have been profitably and gloriously led in some places To get things moving again it may be necessary, however, in many instances first to demonstrate in a limited situation what can be done—as in experimental research Many school systems are now taking this precaution Systematic studies of teaching will supply an important check on the purely verbal attacks upon the problem of teaching so common to the profession For some, full proof will come only when they have had an opportunity to try the thing (or idea) themselves, and see that it works under the conditions under which they work Teachers can lead themselves to better teaching through the same route

The importance of the teacher's attitude It would be difficult to overestimate the importance of the teacher's attitude in the improvement program There is extensive evidence that the learner's attitude influences learning, such as can be found in almost any good book on educational psychology [28] In the case of teachers, one observes that not only does learning fail to take place when there is neglect of the learner's attitude, but in some instances the opposition is so marked that the whole program may be endangered Supervisors frequently fail to sense their own inadequacies in this respect and describe teachers as reactionary, uncooperative, and ineffective Though it is true that some teachers are guilty of more inertia than others, the negative attitudes of many teachers toward the improvement program are in the main the product of poor leadership In general, it merely means that the supervisors either have not sensed the importance of the teacher's attitude or have employed ineffective procedures in working with teachers The teacher's attitude is just as much a fact in each learning situation as are the pupil's intelligence, the length of the school term and other generally accepted facts of education, and when one comes upon opposition to the improve-

[28] Arthur I Gates and others *Educational Psychology* (New York, The Macmillan Company, 1942)

Lois Murphy and Henry Ladd *Emotional Factors in Learning* (New York, Columbia University Press, 1944)

Paul Thomas Young, *Motivation of Behavior* (New York, John Wiley & Sons, Inc, 1936)

ment program, it merely means that someone has failed to place sufficient emphasis upon the teacher's attitude or has employed poor techniques Failure to get the proper attitude on the part of the teacher means the ultimate failure of the improvement program

Some supervisors fail to create favorable attitudes toward newer methods of teaching The motivational methods of supervisors are not always effective The supervisor, out of his experience many contacts, and professional reading, comes to see the necessity for educational change Seeing the importance of change he comes to advocate modified procedures in learning and teaching and in other aspects of the school system for which he is responsible without giving teachers an opportunity to see the need as he sees it Teachers are frequently without the supervisor's background of experience and contacts Teachers are however, faced with the responsibility of putting educational theory into practice Under these conditions they are naturally much more conservative and doubtful about change than are persons less well acquainted with the demands of the immediate situation Then there are many inertias One of the very best illustrations of the influence of inertia can be seen in the great gap between theory and practice in the classes taught by some college professors of education A relatively small number practice in their own teaching the things that they preach Supervisors seem to forget these very important facts in their work with teachers, and instead of planning improvement programs cooperatively they frequently leave the problem to chance sales talks and verbal devices If the supervisor is a good salesman and presents his ideas well, he may secure the outward cooperation of the majority of his teaching staff at least temporarily until the new idea runs into difficulty As already has been said, there is always a wide gap between theory and practice and what is easily advanced in theory may be most difficult to put into practice These difficulties will be discovered in attempting to put the new program into operation and as difficulties arise the teachers will have questions to ask, first, as to detail, and later, as to the general feasibility of the program as a whole Such inquiries will stimulate other less convinced teachers to raise questions until sooner or later the supervisor finds himself committed to an educational program without the support of his teachers This is a thing that occurs, as we all know, all too frequently in American education The failure of supervisors to catch the psychology of this situation gives rise to much of the conflict and ill-will that exists between teachers and supervisors

Discussed in terms of the basic approaches to learning—such as verbal activities observational activities, and direct contact activities—the thing that has happened in this case is somewhat as stated below The supervisor has relied upon verbal communication as a means of securing the necessary new attitudes Though the verbal method is not without value, as witnessed daily by salesmen and saleswomen of all sorts, it has, however,

certain limitations in education, particularly when the ideas presented appear later to come into conflict with the experiences that one gathers from direct contact with the thing itself, or where teachers may observe others to react negatively The supervisor forgets that although it is true that the presentation to him may have been a verbal one and yet sufficient, the social situation provided by college classes and conventions may be very different from that provided in the local school system The general attitude of college classes and educational gatherings is ordinarily positive The audience is selected and made up of persons already favorable to new ideas and not infrequently already committed to the idea presented The prestige of the speaker is an important factor Not to conform under such conditions is to incur the ill-will of the group of which the observer is a member Back home the situation is different Instead of relying upon social pressure to force recalcitrant individuals into line, the supervisor may be confronted with a community and teaching corps that are temporarily or even permanently hostile to the ideas presented There is frequently no very strong positive social pressure persuading teachers to newer modes of behavior Under these conditions the verbal method of creating new attitudes is frequently not successful, and some more convincing procedure may need to be applied Cooperative group attack, let it be repeated, will be more effective

To turn from the negative to the positive, it may be helpful to recall that we are generally more convinced about things that we have experienced directly through contact than by verbal presentation This suggests that exposure to new ideas should be so managed that individual teachers or small groups of teachers may first try the new ideas out for themselves, without too much negative social pressure, and see that they work and that more progress will be made through the use of the newer ways New attitudes may be developed, but to create favorable attitudes in negative climates, it would appear best to rely less upon verbal appeals and to rely more upon group planning and reactions from experience with concrete learning and teaching situations where teachers can experience directly the new values and feel surer about them Supervisors should create situations where teachers can see for themselves that proposed changes are of value to the teachers in their own efforts to teach more effectively The fact that new interests are grown from old interests and that we value those things that work for us is just as true of teachers as of pupils and points the way to a more effective type of leadership than that frequently supplied The psychology of this situation is deserving of more attention than it gets

Some knowledge factors in teacher growth In considering the improvement program it is customary to assume some prior training and experience on the part of the teachers involved, at least that ordinarily provided by teacher-training institutions The adequacy of this basic training should be revealed by the survey of the teacher's competency outlined in

Chapter VIII It would seem that this basic training should include at least the following understandings

1 A List of Specified Understandings Concerning
   a The social order of which we are a part, the function of the school within this order
   b Child nature, needs, and growth
   c The factors and conditions for effective learning
   d Satisfactory levels of performance for various levels of ability, of maturity, and under given conditions

   (The list of understandings would cover many pages Illustrations will be found in many textbooks and monographs dealing with the areas indicated)

2 A Long List of Technical Understandings Such as
   a That there is an ends-means relationship between setting, curriculum, learning, teaching etc, and the purposes of education (The curriculum is not an end in itself neither is the teaching nor the environmental *set up for learning—they are means to ends*)
   b That the purposes of school education proceed from pupil needs as conditioned by their interests capacities and developmental status
   c That the means to pupil growth are varied, including sensory experiences, such as seeing hearing smelling feeling and the like brought to impinge upon the pupil through direct contact verbal communication and observation
   d That judgment is involved in the choice of means (Some courses of action are more appropriate than others whether a particular course of action (means) is more appropriate than another depends upon the purposes persons, principles, and conditions involved)
   e That those means are good—broadly conceived—that get good results (notwithstanding preconceived notions, philosophical theories or scientifically validated so called criteria to the contrary)
   f That mental abilities and personal qualities are merely the precursors of action (They must be viewed dynamically, however as patterns of behavior)

Probably what is listed here is too much to expect in the way of foundational understandings, but it would seem that these things should not be overlooked by those who aspire to improve the learning-teaching situation

Training and experience affect the knowledge factors Teachers vary greatly in training and experience Some of the differences in opinion about what to do or what can be done or what should be done in particular situations or in general arise from the fact that those expressing opinions have widely different sorts of teachers in mind Many of the one-room rural schools of the Midwest and the South are manned by young inexperienced teachers frequently with less than two years of college training Now the situation there is something very different from what one will find in our larger school systems such as Detroit, Cleveland, Minneapolis and Los Angeles Some believe that the situation is so

critical with these less well-trained teachers that more prescription is essential to keep the schools going at all Although there may be temporary gains from prescription, the answer inevitably is better trained teachers and less prescription

In many respects the mature teacher is an even greater problem Even though he may have been originally well trained, his training may not be up-to-date The educational scene changes rapidly The world has just experienced the greatest upheaval of all times Our outlooks and practices both in and out of school need to be changed in many fundamental respects Few teacher training institutions would claim that these new and changing needs have been adequately anticipated in the institutional training provided teachers Both the beginning and experienced teacher may lack the understandings necessary to effective leadership in the complex situation in which we find ourselves

Habits that facilitate teacher growth We have discussed thus far the feeling background and the knowledge background for the improvement program Another important determiner of teacher growth will be found in the behavior patterns to which teachers and supervisors have become habituated Few persons except those to whom the matter has become one of special concern realize how completely they have become bound by the ways of doing things to which they are accustomed Most of us, for example, have come up through schools that have meant classrooms, teachers books and recitations and so we continue by the same means An occasional soul more creative or venturesome than others has broken away from the usual routine, but not most of us The pattern of current education was set in the main some centuries ago by the invention of printing with movable type By and large, the great inventions of radio, sound motion pictures, and television that should revolutionize schools and educational thinking have gone unheeded except as they are superficially employed here and there And so it is with the many little things that constitute teaching Those who would change the pattern of teaching must establish habits of seeing old things in new ways, and of overcoming the inertias that stifle progress

The importance of creativeness in teaching and supervision It has been repeatedly emphasized in what has been said here that the ways of doing things are not good in general but good for certain purposes, persons, and conditions If this is true, and we believe it is, teachers and supervisors will need to bring much creative imagination and sound judgment to their teaching to do the things that they should Teaching is not a thing that is blueprinted in a central office somewhere, but it is something done on the spot by those with the imagination to do it True enough, a certain sort of uninspired teaching can be done by those without imagination, but our boys and girls and young people deserve better than this Much has been written on this subject in recent years and rightfully so It is hoped that the reader will turn to some of the

better discussions of this subject for careful study.[27] There is nothing in this creative concept that conflicts with the practical-scientific point of view developed in this volume. The final test of all creative activity is whether it works, brings satisfaction, and leads to desirable results broadly conceived.

SECTION 6

MORALE AS A FACTOR IN TEACHER GROWTH

Morale is not an end in itself which can be achieved by special methods. Morale is a natural outgrowth of all the factors which contribute to the development of an adequate, successful, and satisfying setting for one's work. To aim at morale as a special and separate matter is likely to result either in a false and insincere spirit which evaporates under pressure, or in contempt for leadership—contempt which is in itself a form of low morale. Morale is a natural accompaniment of growth and in turn an excellent stimulus to growth. It supplies an emotional atmosphere conducive to growth. According to House:[28]

> Morale is (1) a measure of will or tendency to act; (2) that is such it involves the coordination of component tendencies; (3) that it can be seen to act *toward some end* or as *coordination with reference to some purpose*; and (4) that it is dependent upon a structural condition of organization.

> Morale where it exists in measurable degree is to be thought of as a lasting consistent organization of these personal attitudes as they can be mobilized in a corporate activity through the group.

> Morale is a term to be applied to the relatively complete coordination of the attitudes and activities of the group and to the resulting consistent unified and effective behavior of the group as a corporate whole.

Munson indicates still other essential characteristics:[29]

> Morale is a term which should be used to express the measure of determination to succeed in the purpose for which the individual is trained or for which the group exists. It describes the nature and degree of cooperation, confidence, and unity of understanding, sympathy, and purpose existing between the individuals composing the group. It is fitness of mind for the purpose in hand. It is a sense of solidarity of strength and purpose, and ability to undergo in the accomplishment of a common cause. It rises and falls from causes which intelli-

[27] Elmer A. Neal and others, *Supervision and the Creative Teacher's Fifth Yearbook* of the Department of Supervisors and Directors of Instruction (Washington, D.C., National Education Association, 1932).

[28] Floyd N. House, *Industrial Morale*, unpublished Doctor's Thesis, University of Chicago, 1921, pp. 149, 156, 160.

[29] Edward L. Munson, *The Management of Men* (New York, Henry Holt and Company, Inc., 1921), p. 3.

gent analysis can usually detect, and which when once detected are usually capable of being corrected

It will be noted that the two foregoing references are from the literature of industry It is a serious criticism of the educational profession that this vital problem has been attacked hardly at all in the field of education There are, however, a few limited presentations that have been made by school workers, and these will be summarized shortly

Psychological bases of morale Morale is not only a desirable but a desired condition What are the general psychological incentives and urges that lie at the roots of morale? The following list of desires is based on the excellent study carried on several years ago by White [27]

The desire

a For justice individual and group
b For recognition
c For stimulating leadership personal and institutional loyalty
d To satisfy one's sense of achievement
e For security through adjustment to one's job

Scrutiny of these items affords a preliminary view of the conditions under which morale will develop Before turning to a listing of stimulants and depressants, the reader will gain further insight through scrutiny of the evidences of morale or of its absence

Psychological evidences of the presence or absence of morale A very good statement is found in Small's study of executive ability Under good conditions all levels of workers will clearly manifest the following attitudes [28]

1 He is enthusiastic and self-confident He respects his own judgment and is willing both to make decisions and to accept full responsibility for any course of action which they involve
2 He likes and respects those in authority over him and his fellow workers and is confident that they like and respect him He is jealous of their good opinion and is careful to be worthy of it
3 He enjoys his work and takes just pride in its quality and in his ability to accomplish results He believes that those in authority appreciate this ability and he will go to endless pains with difficult problems in order to accomplish results which will justify their esteem and confidence
4 As he is sure of the high regard in which he is held by his employers he is confident of the retention of his position and the security of his future He is free from worry cheerful optimistic, and contented He is able to enjoy his leisure because he leaves his business problems at his office

Before making application to educational work we must again note that the statements above are drawn from business organizations Authority is stressed, and there is apparent some propaganda designed

[27] Leonard D White *Conditions of Municipal Employment in Chicago* (City of Chicago 1925)

[28] Sumner G Small 'How to Develop Executive Ability Through Personality', *Industrial Management*, Vol 61 (February 1921), pp 115 116

to keep employees happy as employees In education we must substitute the term *leadership* for *authority* and stress more the cooperative relation ship than that of employer and employee Intelligently interpreted, however, the four items supply valuable guidance

Obviously the attitudes of persons of poor morale are the opposite of those stated Small s statements are reproduced below because they are more than mere reversals of the positive points The details supply much additional guidance

1 They lack enthusiasm and self-confidence They avoid decisions or responsibility always attempting to pass the decision and responsibility to those over them, even preferring to accept their snap judgment and to proceed on a course they know to be wrong rather than to act on their own initiative They feel they will obtain little credit for correct action but know they will be highly censured for mistakes and even fear the loss of their positions
2 They dislike and do not respect their superiors or fellow workers with the exception of a few in a clique formed defensively for mutual protection They feel that the blame for all mistakes is shifted to their shoulders by their superiors or fellow workers for the purpose of advancing their cause and discrediting them in the eyes of the management
3 They dislike their work and take little pride in it for it is seldom commended They think the managers fail to appreciate their ability they dislike to tackle anything which may result in criticism and the further jeopardy of their positions and they concentrate their energies in avoiding or concealing those matters which have been the subject of past censure
4 They are sure they lack standing with the management and are constantly in danger of losing their positions They are worried depressed pessimistic and unhappy Their leisure is clouded by worry about the uncertainty of their future

With the change of some words and interpretations these points are of value in considering the morale of school workers

Factors inimical to the development of morale An early objective study of morale is the one by White referred to above This was an extensive, carefully analytic investigation of the factors influencing morale among municipal employees in Chicago Practically all his points are directly applicable to the school [1]

Conditions depressing morale

1 Lack of recognition
2 Lack of proper and uniform discipline
3 Handicaps to development of initiative
4 Absence of a common social life among the group
5 Maladjustment of salaries individual and group
6 Inequality and inaccuracy in results of efficiency ratings
7 Prevalence of political influence in determining appointments, promotions regrading of positions assignments, and other phases of personnel management

[1] White *op cit* pp 1 ff

Anderson points out that certain prohibitions and interferences with a teacher's private life are destructive of morale He cites the following [30]

1 Prohibition against such recreations as card playing and dancing
2 Positive requirements, such as church attendance and Sunday School teaching
3 Proscription of marriage, or following certain outside interests deemed to interfere with school work
4 Attempts to secure increased community service from the teacher by requiring that she live in the district remain in it over week ends etc
5 Demands of oath taking flag saluting, and other verbalisms growing out of a grossly mistaken idea of patriotism
6 Rules against giving or receiving gifts

The American Association of School Administrators lists the factors which break morale The American Association of School Administrators lists the factors that break morale as follows [31]

1 Public lack of regard for teachers and the teaching profession
2 Lack of freedom of speech and action accorded public employees
3 Restriction on non teaching activities
4 Work with immature minds
5 Intangible outcomes
6 Faulty school organization and administration
7 Inadequate salaries

Using the foregoing and other fragmentary discussions as bases we may organize a list of factors inimical to morale

I Factors in Community Life
  A Lack of community respect and cooperation
  B Lack of opportunity for desirable social life
  C Lack of comfortable and desirable living quarters
  D Presence of unnecessary restraints prohibitions and interferences with private lives
II Factors in Unintelligent Administration and Supervision
  A Failure to orient new staff members socially or professionally
  B Failure to invite participation in policy and plan making Failure to recognize contributions or good teaching
  C Failure to maintain consistently a sound defensible policy of administration and supervision
  D Failure to maintain a sound employment situation
    1 Selection appointment promotion on capricious personal or political bases undeserved appointments and promotions political interference with technical fitness
    2 Last minute assignments and transfers
    3 Maladjustment of salaries
    4 Too short contractual periods insecurity of tenure
    5 Rapid turnover of both administrative supervisory staff and teaching group

[30] Earl W Anderson Hamstringing Our Teachers' *Atlantic Monthly*, Vol 145 (March 1930), pp 390 397

[31] Carroll E Reed and others *Morale for a Free World, Twenty Second Yearbook* of the American Association of School Administrators (Washington, D C National Education Association 1944) pp 238 246

6 Absence of retirement or pension plan
7 Restriction or absence of sick leave, of sabbaticals for travel or study

E Failure to supply good working conditions properly constructed buildings properly equipped rooms laboratories and playgrounds, proper sanitary facilities, adequate and comfortable retiring rooms for relaxation, etc

F Failure to supply ambitious, enthusiastic, technically adequate professional leadership

Factors favorable to the development of morale Turning once again to White's study, the following methods of stimulating morale applicable to the school are selected from his total list (1) systematic recognition, (2) better organization and procedures of management, (3) greater opportunity (4) survey of physical conditions (5) survey and readjustment of salaries, (6) adequate and fair discipline (7) desirable social life (8) leadership by those in positions of authority

In Hocking's[32] very interesting pragmatic analysis of morale he suggests a number of factors which we may apply to school conditions He states that morale is enhanced by (1) proper time in which to accomplish work, (2) good physical conditions (3) confidence in one's skill and ability, (4) respect and cooperation from the community, (5) elimination of friction (6) appeals to the imagination and ambition

Dorsey[33] suggests that morale will be improved if (1) teacher's load assignments are fair (2) there are good physical surroundings (3) there is sane supervision, (4) proper salary, tenure and retirement provisions (5) sabbatical years, (6) sick leaves and (7) full credit given for all participation and contribution Similarity in the findings of different studies is significant

The American Association of School Administrators suggests morale building practices The American Association of School Administrators suggests the following morale-building practices[34]

1 Mutual support from other staff members
2 Effective organization of teachers
3 Community leadership in projects for human betterment
4 Worthy objectives

Oddly enough none of the studies or discussions mention health as a separate and distinct factor in morale, however, it is unquestionably indicated by a dozen or so of the items which are listed Hence, we may emphasize health as a prime requisite for morale

The following outline presents most of the essential factors in the maintenance of morale

[32] W E Hocking *Morale and Its Enemies* (New Haven, Conn Yale University Press 1918) p 112

[33] Susan M Dorsey Promoting Friendliness in School Relationships *The Nation's Schools*, Vol 5 (April 1930) pp 41 44

[34] Reed and others *op cit* pp 246 253

I Leadership in Community Relationships
  A Securing community recognition and respect for the school and its workers
  B Providing, in so far as an administration can, opportunities for adequate and desirable social life
  C Aiding in the securing of adequate and comfortable living conditions
  D Minimizing, in so far as an administration can unnecessary and unwarranted restrictions upon and interferences with private lives

II Leadership in Administration and Supervision
  A Maintaining a consistent policy and practice of orienting all new staff members socially and professionally
  B Inviting and providing for continuous participation in policy- and plan-making recognizing contributions and suggestions
  C Maintaining a consistent and rational policy of administration and supervision, thus making for confidence and security
  D Maintaining a sound employment policy
    1 Selection appointment and promotion on the basis of objective techniques and merit
    2 Assignments and transfers made with due regard to the difficulties and necessities of preparing for and adjusting to a new situation
    3 An adequate salary schedule based on principles reasonably automatic in operation, and with an open top
    4 Reasonable security of tenure and avoidance of annual elections and contracts
    5 Elimination of causes of rapid or too great turnover in so far as possible
    6 A retirement pension, or annuity plan
    7 A fair policy of sick leave, reasonable ease of security sabbaticals for travel or study

Supervision and the maintenance of morale Supervision has a very special place, if not the crucial place in developing morale We may recall at this point all that was said in Chapter II about the principles and techniques of democracy which are at the heart of this problem In conclusion we present a set of suggestions for the supervisor in morale work

Supervisors will contribute to morale

1 Through manifesting faith and confidence in all their co workers
2 Through expertness in professional leadership displayed (Teachers will have confidence in and work freely with supervisors who are known to be experts)
3 Through a willing and unselfish expenditure of time and energy in meeting problems and in rendering service
4 Through maintaining a policy of cooperative attack and solution in all problems and tasks
5 Through inviting the participation of given individuals and groups in terms of the training, abilities, and attitudes of those individuals and groups (Thus tasks and problems will be entered upon with reasonable assurance of success with resultant effect upon morale)
6 Through giving full public credit for all contributions
7 Through judging contributions, suggestions, and results achieved in terms of the persons concerned and the conditions involved instead of

by some arbitrary standard, through objective data and standards however fragmentary instead of by personal or capricious standards

8 Through leadership and administration which is kindly, sympathetic, and cooperative, and at the same time objective and impartial

9 Through providing every opportunity and facility for the exercise of freedom, initiative, and experimental attack upon problems and tasks

If morale is absent or seems to be disintegrating, the workers concerned should immediately, (1) locate and define the fault, (2) make a diagnostic analysis of conditions creating the weakness (3) formulate cooperatively definite measures for correction of the condition, and (4) apply these measures, that is, do something about it All too often morale work is confined to vague, sentimental appeals and evangelical exhortations Action is an excellent morale builder

A wealth of material on morale is developing currently in both industrial and educational situations The following list is but a sampling of the wide variety available

CRALLL, Robert T and BURTON, William H, 'An Examination of Factors Stimulating or Depressing Teacher Morale," *California Journal of Elementary Education* Vol 7 (August 1938) pp 7 14 Listing of specific factors together with description of technique for studying the problem

GOLDEN C S and RUTTENBERG H J *The Dynamics of Industrial Democracy* (New York Harper & Bros 1942)

HOUSER J David *What People Want from Business* (New York McGraw Hill Book Company Inc, 1938) An important and enlightening study

LEWIN Kurt LIPPITT Ronald and WHITE R K Patterns of Aggressive Behavior in Experimentally Created Social Climates *Journal of Social Psychology*, Vol 10 (May 1939) pp 271 299 An experimental study in classroom procedure but with direct implications for morale

ROETHLISBERGER F J, and others, *Management and the Worker* (Cambridge, Mass, Harvard University Press 1939) One of the most remarkable studies available

TAYLOR Frank J Fitting the Worker to the Job, *The Reader's Digest*, Vol 40 (January 1942), pp 12 16 Condensed from *Future* (January 1942)

WATSON Goodwin The Surprising Discovery of Morale' *Progressive Education*, Vol 19 (January 1942), pp 38-41 An interpretive description of the Roethlisberger study with extensive application to education

SECTION 7

EFFICIENCY OF LEARNING FACTORS IN TEACHER GROWTH

The principles of learning suggest yet other conditions essential for teacher growth Learning to teach is a form of learning just as much as learning certain facts of history, how to work with other people effectively, or how to drive an automobile, and as such it is subject to the general principles of learning laid down by competent authorities In an earlier section of this chapter we discussed certain attitudes, understandings and habitual modes of behaving that may act as controls over what one does or does not do What one may do in any particular learning

teaching situation will depend in part upon the demands of the situation, in part upon the persons involved—their interests, capacities, and personal idiosyncrasies—and in part upon the principles of learning, teaching, and supervision that we hold to be true There are no standard tricks of the trade equally applicable to all persons, purposes, and situations The choice of effective learning here under discussion furnish one set of controls that one may employ in the guidance of learning activities of teachers

Sources of information on important principles of learning It is not our purpose to reproduce here the many excellent lists of principles of learning already available in the literature of education For these the reader is referred to such volumes as

DASHIELL John Frederick *Fundamentals of General Psychology* (Boston, Houghton Mifflin Company 1937)
DAVIS, Robert A , *Psychology of Learning* (New York, McGraw-Hill Book Company Inc , 1945)
MCCONNELL T R and others *The Psychology of Learning Forty First Yearbook* of the National Society for the Study of Education (Bloomington, Ill , Public School Publishing Co 1942), Part II
MCGEOCH John A *The Psychology of Human Learning* (New York Longmans Green & Co , 1942)
MURPHY Lois, and LADD Henry, *Emotional Factors in Learning* (New York Columbia University Press 1944)
GATES Arthur I and others *Educational Psychology* (New York The Macmillan Company 1942)
BURTON W H *The Guidance of Learning Activities* (New York D Appleton-Century Company Inc , 1944)

In these and other volumes, supervisors and teachers will find much helpful material on teaching and learning how to teach Shorter lists of principles will be found in Chapter IX All of these principles have implications for learning to teach, and we hope that the reader will come to make more general use of them Six of these principles of particular importance in facilitating teacher growth have been chosen for emphasis here

The learning experience must grow out of a felt need This principle of learning has already been implied in the discussion of the motivational factors in the improvement program discussed earlier in this chapter Supervisors may see the need of some suggested improvement teachers frequently do not In Chapter VIII and the earlier portions of this chapter, ways and means of assisting teachers to discover their own needs were discussed They must not only discover needs, but they must discover them in such a manner that they see their importance This feeling of importance or of the necessity of doing something must be genuine if the many obstacles and the inertias that block progress are to be overcome Another way of emphasizing this same point is to say that supervision should be goal centered and purposeful

Interest is an important factor in learning Interest in any given activity arises from many different facts and conditions In the first place, every normal human being comes into the world with certain very definite biological urges, drives, or whatever else one cares to call them These biological urges,[87] such as hunger, thirst, sex and so forth, are tangible things, generally found in all human beings They constitute merely a starting point as the individual matures and his social contacts broaden, these urges take on many different forms In general, new interests arise from old interests For a new interest to emerge it must first serve as an effective means to some valued end or goal If the means is an important one, if it satisfies the purpose to which it is put (and there may be many purposes), and if the final outcome is satisfactory and meets with social approval, a new interest may arise It would appear that all new interests emerge from old interests in some such fashion as described above and that such a principle is true for all—pupils teachers, and supervisors Supervisors frequently fail to provide the conditions that lead to an interest in teaching and in the improvement of teaching methods Under proper leadership most teachers should develop sincere interest in teaching and improvement

Satisfaction and success must attend the teaching act The principle of satisfaction and success is frequently violated by those who would help teachers It is not uncommon for beginning teachers for example, to be given assignments completely beyond their training experience and maturity—assignments that inevitably lead to trouble Many experience difficulties with discipline many find very distressing limitations placed upon their personal habits and ways of living many find themselves denied things that they value much more than teaching The total effect is considerable unhappiness a sense of incompetency, and failure The continued imperviousness of many supervisors superintendents and boards of education to things of this sort have led to no end of discouragement on the part of teachers The job to be done needs to be managed in such a manner that success and genuine satisfaction may attend teaching

Teachers differ in interests, needs, and capacities, and provision must be made for these differences in the improvement program No principle of good teaching has been so generally violated in the field of supervision as the principle of individual differences In a very real way, supervision, by means of bulletins, teachers' meetings, and conferences as commonly employed, is mass instruction of a sort now generally discarded in the instruction of pupils In the use of these common means of supervision, teachers are treated as if their needs were all alike That such a thing should happen is, of course, inherent in the traditional approach to supervision rather than upon the relation of these means to the ends

[87] Arthur I Gates *Psychology for Students of Education* (Revised edition, New York The Macmillan Company 1931)

served For many supervisors, teachers' meetings are only vaguely a means to an end, they have become in a very real sense ends in themselves It would seem relatively certain that they were not thinking of helping individual teachers Though this type of supervision is not without merit, it should be clearly recognized that it is of the mass instruction pattern and subject to all of the shortcomings of this type of instruction There are many ways in which the individual needs of teachers can be recognized One of the earliest recognitions of the fact that not all teachers should be treated alike in their training was by Kyte[38] who introduced into his text a special discussion of supervision for different types new teachers, weak teachers, and superior teachers This is valuable and in keeping with the situation as it is observed in practice It is hoped that supervisors may keep at least these three fundamental different types of teachers in mind as they plan for the continued training of teachers in service It has been the purpose of this volume to employ however, not merely group methods of providing for individual differences but to carry the application to the point of adapting the means, methods and materials to the interest, needs and capacities of individual teachers More will be said about this in a later section of this chapter on limitations in what may be done growing out of the character of the person involved in the improvement program

Learning is reacting and there can be no learning without it Another very important psychological principle sometimes forgotten or otherwise overlooked in learning is the principle of reaction There can be no learning unless there are reactions to the conditions about one This principle has wide application to learning to teach In the first place no mere routine performance of the teaching act itself will educate It is not the gross amount of experience that counts but the amount of analyzed experience There must be reacting, and this frequently can be made much more effective by directing the learner's attention to the significant aspects of the experience in progress Psychology abounds with illustrations of activities long performed without attention and not learned Another very important application of this principle arises in the use of observational techniques Persons frequently fail to learn because significant acts of teaching pass by unnoticed One way to stimulate the learner's reactions to the significant elements of a learning situation is to call his attention to them This principle also applies to such techniques as teachers' meetings If teachers are too tired to listen, are bored, or otherwise not interested in the subjects discussed with them in teachers' meetings, there may be a minimum of learning In general, all learning involves reacting

Knowledge of progress is an important condition for effective learning One of the more important principles of learning generally violated or

[38] George C Kyte, *How to Supervise* (Boston Houghton Mifflin Company, 1940) pp 383 457

neglected in teacher education is that of knowledge of progress Thorndike has shown in his experimental studies of learning[37] that little or no progress is made in learning when the subject is uninformed as to his progress Though similar studies have not been carried on with teachers, the principle would appear equally applicable to learning to teach The general violation of this principle of effective learning arises partly out of the fact that the importance of the principle has not been generally recognized and partly out of the fact that supervisors have been generally without adequate instruments for the measurement of teaching efficiency The subjective evaluations made by the teacher himself and the supervisor, from time to time may fix the inappropriate responses instead of the right responses The means of evaluating teacher growth have been discussed in Chapter VIII

Some comments on the use of principles in facilitating teacher growth Educational principles constitute one of the important controls over behavior to which reference has been made frequently in this volume Our purpose in this chapter has been to discuss some of the general features of the program for facilitating teacher growth We said early in the chapter that we would start with needs Then we emphasized one set of conditions namely, some of the immediate environmental factors that may limit or facilitate teacher growth Following this we reviewed three sets of personal factors that may condition teacher growth, namely (1) those more or less stable qualities of the person such as intelligence, common sense and adaptability (2) those more educable specific knowledges skills, attitudes ideals, interests and appreciations that act as controls over behavior, and (3) morale In the present section we have emphasized the importance of the principles of economical learning in facilitating teacher growth, in the materials to follow immediately we shall discuss some principles of leadership What one may wisely do in any particular situation will depend upon (1) the need or purpose, (2) the sorts of persons involved, (3) the principles of learning, teaching and leadership that we hold to be true, and finally (4) the limiting aspects of the immediate situation The principle then is one of the important general guides to what to do and how to proceed in facilitating teacher growth

SECTION 8

PRINCIPLE OF LEADERSHIP THOUGHT TO FACILITATE TEACHER GROWTH

Types of factors to be considered here The final set of facilitating factors to be considered here are those relating to the quality of leadership provided in school situations The general principles of leadership

[37] E. L. Thorndike Fundamentals of Learning (New York, Bureau of Publications Teachers College Columbia University 1932)

have already been discussed in Chapter III A number of statements of the principles of leadership as applied to teacher growth have appeared in the literature of education The statement below, which may be taken as representative of the emphasis in this field, is based upon statements by Corey,[38] Goslin [39] and Spears [40]

1 *Leadership should be problem centered* Necessity develops novel approaches, people work best when what they do seems important
2 *The need for group action must be felt by those participating in the undertaking* It must not be imposed from without or above
3 *Start where the group is* Groups are usually quite heterogeneous in many respects they differ in readiness capacity, and the energy that they bring to bear upon what is to be done
4 *Slow progress is the rule* Real learning which involves changes in practices rather than changes in verbalizations never comes quickly
5 *Actually do something* Guard against the enervating tendency to discourse and discourse until everyone is disgusted with chatter and anxious to do something else
6 *As far as possible the activity should be of a cooperative sort involving wide participation from those concerned* Get teachers pupils and members of the community all working together
7 *The leadership must stimulate those concerned to the best of which they are capable* It should release energy, not bottle it up
8 *Leadership is constantly alert to new opportunities to do and grow* The task must be approached with creative imagination
9 *The group should employ the principle of alternate leadership* Get as many different persons as possible into positions of leadership
10 *A free exchange of ideas is basic to group action* As far as possible those attempting to express ideas should have a high sense of fairness objectivity, and truth
11 *Decisions should be fashioned out of the combined thinking of those affected* Democracy must supplant authoritarianism
12 *Cordial interpersonal relationships are important* Teachers who know and like one another personally are more apt to change as a consequence of group action than are teachers who interpret a professional difference in point of view as a personal attack
13 *The group should encourage constant evaluation* Evaluation is important in indicating both needs and progress in meeting these needs
14 *Good records are necessary* Good terse permanent records of group accomplishments should be scrupulously kept

Space does not permit comment upon these several principles individually They are all important however, and worthy of wide acceptance and application We would like to emphasize the importance of group action

[38] Stephen M Corey 'Cooperative Staff Work," *School Review* Vol 52 (June 1944) pp 336 345

[39] W E Goslin When We Work Together, *Educational Leadership* Vol 11 (January, 1944) pp 221 229

[40] Harold Spears and others, *Leadership at Work, Fifteenth Yearbook* of the Department of Supervisors and Directors of Instruction (Washington D C National Education Association 1943)

The importance of group action The foregoing statement emphasizes the importance of group action The idea is not new by any means, but a tremendously important one in a democratic order The Greeks, particularly those of the Periclean period, provided a large amount of group participation in the formulation of public policy, the English-speaking people have from early Medieval times fought for freedom of speech and group participation in governmental affairs The town meetings of New England are illustrative of the struggle for and practice of democracy in public affairs Of all of our public institutions, the schools have been among the slowest to introduce democratic techniques As one examines the literature relative to school practice over, say, a quarter of a century past, one finds, however, increasing concern over the practice of democracy in formulating instructional policies and programs

The scope of democratic thinking has been materially extended in the last decade or so As early as 1924, Barr reported widespread use of the committee system of planning curricula and courses of study, and, in Detroit, a plan for getting all teachers to participate in group planning for the public schools[42] With his book, *Teacher-Pupil Planning*, Giles[43] gave new emphasis to pupil participation in planning Several good books[44] upon community participation in planning have appeared recently Universities like the University of Wisconsin have employed democratic group planning techniques, as far back as the mind of man runneth not to the contrary, in formulating policies, planning curricula building buildings, setting salaries, and many forms of community service The reader will find many splendid examples of the growing interest and practices of democratic group planning in recent reports of the Commission on Teacher Education[45] and yearbooks of the Department of Supervision and Curriculum Development[46]

Many of the arguments for democracy have been based upon the Bill of Rights and the protective features of personal representation We would like to emphasize here, however, not merely the desirability of individual representation from the point of view of the protection that

[42] A S Barr Making the Course of Study *Educational Method* Vol 4 (May June 1924), pp 371 378 427 436

[43] H H Giles, *Teacher Pupil Planning* (New York Harper & Brothers 1941)

[44] Gordon W Blackwell *Toward Community Understanding* (Washington D C American Council on Education 1948)

Stephen J Ipler The Teacher the School, the Community Bulletin of the Commission on Teacher Education (Washington D C American Council on Education 1941)

Samuel Everett, *The Community School* (New York, D Appleton Century Company, Inc 1938)

E G Olsen *School and Community* (New York Prentice Hall Inc 1945)

[45] Charles E Prall and C Leslie Cushman *Teacher Education in Service*, prepared for the Commission on Teacher Education (Washington, D C, American Council on Education, 1944)

[46] Paul Misner and others *Group Planning in Education 1945 Yearbook* of the Department of Supervision and Curriculum Development (Washington, D C National Education Association, 1945)

it affords the individual but also from the point of view of getting good ideas and workable programs of action Education is a very complex process—as a matter of fact complex enough that it cannot be encompassed by a single individual What may appear complex, however, to the single mind need not be nearly so complex to the group mind When we learn how to use many minds effectively, many of the problems not now comprehended at all or comprehended partially or poorly should be clearly encompassed The physical sciences have used group thinking with great success, there is no reason to believe that it will not work with the complex problems of human relations and education.

SECTION 9

SOME SUMMARY STATEMENTS OF CONDITIONS ESSENTIAL TO TEACHER GROWTH

Many persons have attempted to summarize the conditions essential to teacher growth One of the best recent summaries is one issued by a sub-committee of the North Central Association of Colleges and Secondary Schools[40] This report emphasizes (1) the fact that the environment must be conducive to maximum growth, (2) it must promote mental health, (3) it must release energy, (4) it must encourage democratic cooperation on the part of all concerned, (5) it must promote effective methods of problem solving, and (6) it must provide maximum opportunities for creative thinking The following fifteen criteria stated from the point of view of environmental factors in teacher growth are proposed by the Association for evaluating the in-service education of teachers

1 In service education should encourage democratic cooperation of members of the teaching staff in the solution of problems
2 In service education should provide ever increasing opportunities for teachers to develop the ability to assume responsibility for leadership in staff activities
3 Administration and organization should exist primarily for the purpose of coordination and record
4 Leadership should be a function not a person and should pass from person to person as such individuals have a creative contribution to make
5 Participation in and understanding of school management should be guaranteed to all in proportion to their willingness to accept the responsibility
6 The administrator should be encouraged to conceive of his function as a co worker and guide in the educative process
7 Cooperative planning should be encouraged, cooperative action should be the result, and cooperative evaluation and study should ensue
8 Sharing the responsibilities of planning the work of the school should result from a philosophy of cooperative participation
9 It should encourage teachers to share with each other and with pupils

[40] C A Weber, Basic Assumptions for Evaluation of Techniques Employed in Secondary Schools for Educating Teachers in Service *North Central Association Quarterly*, Vol 17 (July, 1943), pp 19-27

and parents the responsibility of planning the work of the school evaluating progress, and introducing changes in procedure

10 It should encourage teachers, pupils, and parents to participate actively in curriculum planning

11 It should guarantee that major decisions as to basic principles, objectives, score and organization should be made cooperatively

12 It should encourage each member of the staff to will for every other member of the staff that member's highest good and to give freely of his own services to help secure that highest good

13 It should guarantee that each member's wishes shall be given relative value by the group and that such wishes shall not be put aside

14 It should develop group morale where everyone knows that his ideas are respected where each member knows that his ideas must stand the test of group consideration

15 It should encourage every member of the staff to be group conscious and to think of himself as an agent of the group

The following criteria were proposed by the Association for evaluating the techniques employed in the in service education of teachers

A Criteria Relating to the Purposes of In Service Education

1 *In service education should be concerned with rethinking and reconstructing* the educational program

2 It should be concerned with curriculum development

3 It should shed light upon the most recent developments in theories of learning and their implication for educational practices

4 It should be concerned with new developments and new discoveries regarding child growth and development

5 It should be concerned with providing more adequate learning materials more promising procedures for making learning effective and more adequate evaluation of these materials and procedures

6 The program should engender development of objectives consistent with pupil needs in the light of the requirements of a democratic society

7 It should promote release from traditional courses of study systems of grades, promotions marks authoritative administration, and unsympathetic attitudes on the part of the school community

8 It should encourage and foster selecting of subject matter on the basis of needs, interests and abilities of pupils

9 *It should engender continuous study of pupils* and focus attention upon pupil growth rather than upon subject matter

B Criteria Relating to Factors Resident in the Teacher

1 It should engender sensitivity on the part of the teacher to the full social significance of the task of the teacher

2 It should engender a felt need for change in the school program and foster release from traditional procedures

3 It should engender a dynamic social outlook that recognizes the necessity for changes in society and provides a significant rôle for the school in bringing them about

4 It should engender awareness of the social economic, and political problems of the community, both large and small

5 It should encourage teachers to become careful students of adolescent childhood and to become experts in directing learning rather than experts in subject matter areas

6 It should acquaint teachers with recent educational research in how

learning takes place, methods of teaching, etc, and should acquaint teachers with current educational periodicals and books dealing with the problems of education

7 It should provide for reviews of educational research and summaries of educational research and should encourage teachers to become familiar with such material

8 It should encourage teachers to evaluate pupil growth in terms of these objectives

9 It should encourage teachers to develop cooperatively a working philosophy of education based upon scientific knowledge and democratic orientation

10 In-service education should begin with problems which arise out of the specific situation in the school

11 In service education should result in the discovery of what actually constitutes the problem

C Criteria Relating to Methods

1 It should provide for participation in forums, meetings, and conferences on current social problems

2 It should encourage careful, systematic study on the part of the entire staff of the child's home and the community

3 It should encourage participation in socially significant activity with the children in school and as citizens of the community outside of the school

4 It should engender organization of all the social agencies of the community

5 It should foster experimentation and evaluation of experiments and should acquaint teachers with the significant experiments in education being conducted or recently completed in other school situations

6 It should encourage the study and discussion of learning problems based upon direct experience in the classroom situations and should in turn currently determine the redirection of such experiences

7 The program of in service education should engender careful study of the child's community

8 It should encourage teachers to study carefully the developments in curriculum planning in other schools

9 It should result in careful study of recent research in the general area of curriculum development

10 In service education should provide for situations in which relevant ideas or plans of action are entertained and discussed as possible ways of solving problems

11 In service education should provide for experimentation with the plans of action which have warranted assertability of success

12 In service education should provide for evaluation of experiments in terms of the consequences in the light of the basic difficulties to be solved

The criteria here proposed seem to be in harmony with those already proposed earlier in this chapter

The teachers of the Colquitt County and Moultrie Schools (Georgia) summarized these conditions in answer to the question, What are some of the conditions conducive to teacher growth?[47]

[47] Maurice E Troyer and C Robert Pace, *Evaluation in Teacher Education* (Washington, D C American Council on Education 1944) pp 300 301

1 Teachers grow when they have a feeling of achievement and when they have the respect of others
2 Teachers grow when they set up clear and worth while purposes within their reach
3 [The] clarity of [the teachers'] purpose increases as they see definite results in the lives of students On the other hand as teachers try many types of things and see results they come to have an increasing clarity of purpose that will act as a guide for future action
4 Teachers grow when they have many varied free and open avenues of communication with others
5 A feeling of belonging to the group is necessary for teacher growth
6 Teachers must have freedom to experiment with their own hypotheses and plans and must not be limited too much by established procedures
7 Teachers grow when school activities are centered around environmental problems
8 Cooperative efforts among teachers in which they feel themselves a part of the group, find common purposes and work together to break down barriers make for teacher growth
9 Teachers grow as they participate in experiences leading to an understanding of the total school program
10 Teachers grow as they have responsibilities they are capable of fulfilling
11 When personal matters are satisfactorily adjusted teachers tend to grow
12 Teachers grow when they are working in jobs they are trained to handle and for which they are emotionally and physically adapted
13 Teachers grow as they are able to develop gradually and when they do not have to take on duties and responsibilities they are not ready to assume
14 Free and easy relationships with children promote teacher growth
15 Teachers grow when they find economic security and have sufficient money to live the good life, to buy the small things necessary to mental ease and when they do not have to make teaching a continual battle against penury

This summary made by teachers in the field is conspicuously freed from the accusations of "theory" and "imposition."

Individual problem solving as a means to self improvement We have emphasized in the immediately preceding pages of this chapter the importance of group action It is probably true that no person ever progresses very far, however in the difficult art of teaching without becoming a careful student of its many intricacies This the interested teacher will do regardless of outside assistance Such study and improvement may be carried on at least three levels (1) the level of incidental observation, (2) the level of systematic investigation, and (3) the level of controlled research All three of these approaches to learning may be valuable in the hands of the alert teacher We wish to emphasize here the importance of providing teachers with opportunities to study their own felt needs, both incidentally and systematically, as in classroom research Out of the systematic study of one's own problems, teachers should learn much about how pupils learn and grow, and effective methods of helping them Teachers will find the systematic type of investigation a time consuming

but valuable experience Never to have had an experience of this sort is to have missed something of great worth With proper safeguards the field of classroom experimentation and investigation opens up to teachers an activity of tremendous import for the future of the teaching profession This activity must, of course, be counted in the teacher's load

Teachers as well as supervisors should be alert to see and solve problems The tendency in instructing pupils is to introduce more learning of the problem solving type In general, the results appear beneficial There is every reason to believe that the use of similar methods in learning to teach or in guiding those who would learn to teach should also bring worth while results Everything possible should be done by supervisors to help teachers to acquire a problem-solving attitude toward the problems of teaching and to attack these problems systematically A point was made in Chapter VIII of the fact that the principles of learning derived from laboratory research must not be accepted as a matter of fact and applied to the less well-controlled conditions of classroom instruction without further tests in the classroom [48] If this is a fact, and it appears to be so, then teachers and supervisors should only accept the results of laboratory research subject to verification To assure themselves that these laboratory derived generalizations hold true for the less well controlled conditions of the classroom, teachers must plan for the systematic study of these generalizations under actual teaching conditions The general subject of the experimental study of supervision and teaching will be discussed in Chapter XVII

Some illustrations of improvement programs There are many reports of attempts to apply these newer concepts of teacher education to concrete learning teaching situations available in the literature of education Curriculum-development programs are increasingly the vehicle for staff improvement Two such illustrations are presented below The examples are chosen from widely different areas and leadership

The West Dane County curriculum project The West Dane County curriculum project is a part of the Wisconsin curriculum program, from which it secured its original impetus The general plan of the curriculum project was outlined by the State Committee in a special bulletin called 'The Task of the School,' cooperatively developed through wide participation Following the guide prepared by the Curriculum Guiding Committee [49] the county superintendent of schools took the first step by calling together a county meeting at which time the project was discussed To cut down on travel the West Dane County teachers were grouped into seven community groups of about thirty-five teachers each A chairman and a secretary were elected by each group of teachers

[48] A S Barr *An Introduction to the Scientific Study of Classroom Supervision* (New York, D Appleton Century Company Inc , 1931)

[49] Gordon N MacKenzie and others, 'The Task of the School,' Bulletin No 1 Curriculum Guiding Committee (Madison Wis State Department of Public Instruction 1945)

These seven chairmen, the secretaries, and the resource leaders were organized, under the county superintendent of schools, to form a liaison committee for the general oversight of the project.[80] This committee representing the teachers and others concerned prepared detailed directions for the planning of area meetings, a statement of the functions of chairmen, secretaries, and resource leaders, and a list of topics for four area meetings. The following topics were suggested by the Committee for discussion during the first year of the project:

Meetings in October	personality characteristics, interests, aptitudes and abilities of children
November	democratic practices in classroom procedures
February	health—personal and public, mental and physical
March	changes in what the school offers and the need for extended services

Although each group was autonomous, the Liaison Committee prepared and supplied the chairman of each local group a list of topics that it thought might serve as a starter in each area discussion. There are many such lists. The one for the personality characteristics of children is given below:

1. Personality differences persist
2. Symptoms symbolize sore spots
3. Illustration of causes corrected
4. How specialists may aid the teacher
5. Inadequate feelings and how they affect children
6. Every pupil a personality
7. Classroom activities affecting mental health

NOTE. The lists are not supposed to be polished statements by curriculum experts.

The time schedule suggested for area meetings was as follows:

1:30—2:30	problems analyzed
2:30—4:30	finding answers (group round table discussion)
4:30—5:30	answering questions (county superintendent's staff and resource leaders)
5:30—6:30	supper (Lutheran Church)
6:30—7:30	small group discussions continued
7:30—8:30	general session, summaries by small discussion group secretaries, comments by resource leaders, listing of problems for further study and consideration

This schedule was modified as each group thought best. A summary list of questions left for further study in one of the first area meetings is given below:

[80] The author is indebted to Mr. Lester Evans, principal of the Lake Wood School, Madison, Wisconsin, and chairman of the liaison committee, for the materials from which this summary was prepared.

We start with needs	*We choose from among needs*	*We use needs*
What are needs?	What shall we choose?	How are needs satisfied?
Where do we find them?	Who shall choose?	What experiences will satisfy?
How do we find them?	How shall we choose?	How much experience is worth while?
How do we state them?	How many shall we choose?	Who shall decide what and how much?
	How shall we group them?	When are needs adequately satisfied?

The reports of each area meeting were forwarded to the chairman of the liaison committee for summary mimeographed summaries were then forwarded to all participants A detailed inventory was taken—near the beginning and again near the close of the school year—of each teacher's practices and attitudes relating to the tasks of the school An excerpt from this inventory prepared by the chairman of the liaison committee is given below

Frequently	Occasionally	Almost Never	
			A Educational Practices I as a teacher
			1 Use data from observation of my pupils to understand their differing aptitudes and abilities
			2 Accept student interests as a guide for classroom discussion
			3 Treat the "different child" as a case for study in child personality
			4 Use teacher-pupil planning of classroom procedures and of units of work
			5 Show active interest in the health of my pupils by stimulating good health practices among them
			6 Use knowledge of the abilities of my pupils which I obtain from personal conferences with them
			7 Encourage backward pupils in my group to develop interests and hobbies
			8 Recognize that children's personalities differ from one another and adjust methods accordingly
			9 Use small groups or committees to accomplish previously planned work
			10 Come to school even when suffering from a severe cold or other illness
			B Educational Attitudes
A	U	D	1 Careful observation by the teacher takes the place of those detailed tests which find out the individual weaknesses and strengths of the pupil
A	U	D	2 A teacher must present all the material in the textbook and course of study regardless of the interest shown by the class

A	U	D	3	The school must concern itself with the personality growth of the child as well as growth in skills and knowledges
A	U	D	4	The teacher and the children together should plan their activities, rather than the teacher planning them alone
A	U	D	5	The teacher has enough to do in teaching her classes without being involved in the study of the health of her pupils
A	U	D	6	A teacher need not give standardized tests in subject fields since through personal conference with the pupil she is enabled to form judgments which better indicate that pupil's ability
A	U	D	7	The effective teacher will endeavor to encourage interests in some children, while at the same time change or attempt to change that same interest in another child
A	U	D	8	One of the first steps that a teacher should take in assisting the child to develop his personality is to recognize the characteristics of different types of personalities
A	U	D	9	In order to acquire traits of independence, leadership and cooperation as well as the subject skills, it is necessary that pupils work independently of each other
A	U	D[51]	10	There is little relation between the teacher's own health practices and those of the pupils under her supervision

The Colorado Learning Conference In the second illustration here cited, a university staff member tries a functional approach to psychology The author continues as follows [52]

It is apparent that if educational psychology is to make any real difference in the thinking and teaching of teachers the program of professional training should be a continuous one wherein the educational psychologist and the classroom teacher work together in the solution of learning and teaching problems One means of achieving this aim is through the *Learning Conference* conducted for teachers on the job the teachers presenting their own problems and suggestions for their solutions and the educational psychologist contributing theories and research data

The *Learning Conference* is sponsored by the Bureau of Educational Research University of Colorado is now in its fourth year In order that the program may fit the needs of the local school system it is planned a considerable time in advance and it is a cooperative affair involving contributions from the teachers, the superintendent and the educational psychologist The preliminary planning includes consideration of the number of teachers at each educational level appropriate time of the school year for holding the conference time and place of meetings preparation of suggestions to teachers for advance preparation and similar matters The teachers are urged to give considerable thought to their frequently recurring problems of learning and teaching and to be prepared to consider possible solutions The value of the conference is determined largely by the care with which it is planned

The conference as usually planned makes use of two types of program one a general session and the other sectional meetings, adapted to the special needs

[51] A = agree
U = uncertain
D = disagree

[52] Robert A Davis, The Learning Conference The Blending of Research with Teaching Experience *Journal of Educational Research*, Vol 37 (October, 1943) pp 116 118

and interests of smaller groups of teachers The general session ordinarily consists of brief lectures by members of the University staff, some stress learning and others stress testing and evaluating The purpose of these lectures is to present an overview of the problems of learning and evaluating and to set the stage for more detailed and analytic treatment of the problems chosen for special consideration in the sectional meetings

Teachers most interested in learning attend a *learning* section, those most interested in measurement and evaluation an *evaluation* section A specialist in elementary education serves as consultant for teachers in the elementary group a specialist in secondary education serves as consultant for those of the high-school group It is the duty of the chairman of each section to direct the discussion along pertinent lines and to prevent digression to topics unrelated to classroom learning and evaluation A secretary keeps a record of all significant discussion and with the aid of the chairman prepares a summary of generalizations formulated by the group The consultant for each section brings to the discussions research data and noteworthy practices in other school systems Problems and opinions of teachers form the basis of discussion it is predominantly a teachers' meeting

The discussion in the sectional meetings as those in the typical workshop, may lead in diverse directions and express the attitudes of individual teachers without coming to grips with few significant problems common to members of the group There is need for good leadership The chairman of each section must at all times direct the discussion toward significant problems and prevent its being dominated by certain individuals It is difficult too, sometimes, for some teachers to profit from a modern discussion of learning and teaching because of either inadequacy of general education or lack of continued professional study

The conference is ordinarily concluded with a general meeting which the members of all sections attend At that time each sectional chairman presents a summary of generalizations or viewpoints formulated by his group, if time permits still further discussion by individual members is encouraged The purpose of the final meeting is to present for mutual benefit of elementary and secondary school teachers a summary of significant viewpoints developed by teachers and consultants Detailed reports of sectional meetings are used in planning future conferences

Perhaps the most significant contribution of the conference is the opportunity that it affords for blending theoretical and research data with teaching experience The consultants bring to the conference recent theories and research findings regarding the nature and direction of classroom learning and evaluation, the teachers bring their most pressing learning and teaching problems together with their experience and observation concerning possible means of solution The consultant becomes intimately acquainted with the everyday problems of the classroom teacher and consequently becomes more realistic in attitude toward his own teaching research, and writing The teacher is stimulated to attack his teaching problems in the light of recent theory and research and to try out new techniques in the field of his teaching interest The sectional meetings afford unique opportunity for teachers to present their problems, to share points of view with other teachers having similar problems, and to evaluate in the light of their own experience results of research contributed by consultants

The illustrations here chosen are examples of effective leadership They differ in detail, in emphasis, and in vocabulary, but they both strive for problem-centered teacher growth Working together in cooperative im-

provement programs like those just described should bring values such as the following [88]

1 More teachers have a sincere desire to grow and improve
2 The relationships that exist between the human beings connected with the program are freer more democratic, and more friendly This applies to the relationships that exist among the school board the administrators, the teachers the parents and the children
3 There are more sincere efforts made to work together on common problems and toward common goals on the part of the schools in the unit, the administrators the teachers the parents, the children and community agencies
4 More teachers have a better understanding of the children with whom they work and of the nature of child growth
5 More teachers believe that school experiences should be centered around the problems, interests and needs of the individual
6 More teachers believe that the function of the school is to serve the community in which it is located
7 Teachers understand better and are more sensitive to certain social problems which now exist in our community
8 More teachers use community and academic resources effectively
9 More teachers have a broader understanding of the total school program
10 More teachers are willing to use an experimental approach as they function in the school program
11 More teachers have a greater respect for themselves and the work they are trying to do

SECTION 10

CHOICE OF SPECIFIC METHODS AND EXPERIENCES

The ultimate goal is the improvement of the teacher in action It has been the purpose of what has preceded to recall and discuss briefly a few of the many factors conditioning teacher growth Our ultimate goal is to facilitate teacher growth, particularly teaching efficiency as it relates to pupil growth We are ultimately concerned with the teacher in action, and our ultimate goal is to improve this action We have referred to this goal variously in broad terms, as the modification of teacher behavior as the development of efficiency in performance, and as the improvement of teaching methods To improve teacher behavior performance and teaching methods, one must however, ordinarily go behind the scene of action to the determiners of action It has been our purpose in what has preceded to discuss some of the more important determiners of what teachers may and should do in the guidance of pupil growth

The details of teaching methods are not here discussed Although our ultimate concern in this chapter is with the teacher in action, it is not our purpose to discuss here the details of teaching methods The many things that constitute good teaching procedure are important, but they make up the subject-matter of another volume in this series, namely

[88] Troyer and Pace *op cit* pp 299 300

Burton's *The Guidance of Learning Activities*[54] Our purpose here has been to present in broad outline the logic of the program for facilitating teacher growth, the factors that condition teacher growth, and how these factors influence the means, methods, and materials of teacher education in service, rather than the details of teaching methods

The choice of methods and experiences for facilitating teacher growth will depend upon many considerations There is always a judgment factor in the choice of the methods and experiences that one may employ in the facilitation of teacher growth It probably goes without saying that the learning experiences will not be similar for all teachers Probably the most important determiner of what to do will be found in the teacher's growth needs The methods by which he or others concerned may discover these needs have been discussed in Chapter VIII Other limitations will be placed upon what can be done in particular situations by the personal qualities of the teachers, such as differences in interests, capacities, and achievements Some limitations will be imposed too by environmental factors such as community mores, administrative policies, and equipment broadly conceived Then there are the controls that arise from the knowledges, skills, attitudes, interests and ideals of particular teachers Some will feel limited too by a host of sociological and psychological principles that they hold to be true such as the principles of learning and leadership The choice of means methods and experiences for facilitating teacher growth will be limited by all of these considerations

The kinds of learning experiences from which one may choose One big advantage of learning on the job is that the world's best laboratory is always close at hand From this point of view the choice of learning experiences has already been made One may, if he chooses, however, supplement these experiences by reading, observation and discussion, but the opportunities of learning by doing in one's everyday activity should not be overlooked To become truly proficient in teaching requires much practice and an extensive background of experience secured either first hand in learning by doing or vicariously through observation or through verbal communication To catalogue completely the many kinds of experiences for teachers—experiences considered helpful in overcoming various handicaps shortcomings, and difficulties—is beyond the scope of this book A partial list of experiences valuable for increasing pupil learning and which will be of some assistance here will be found in Chapter XI

The specific techniques used in assisting teachers are discussed in Chapter XV It has been the purpose of this chapter to discuss certain general features of the improvement program rather than the devices by which the program is to be put into operation In choosing the type of

[54] W H Burton *The Guidance of Learning Activities* (New York D Appleton Century Company Inc 1944)

presentation here made, it was felt that the choice of methods and means might be rendered more intelligent by this type of presentation The device is the immediate means of getting something done Sometimes they are used intelligently and sometimes they are not Sometimes they become outmoded and new blueprints are needed It has been the purpose of this chapter to supply the background for choosing wisely from such devices as are now available and for constructing new ones as needed The specific means by which the improvement program including teacher growth, may be carried forward will be discussed in the chapter to follow

Chapter summary We have emphasized, in this chapter the fact that teachers pupils, and supervisors are all learners and are working together for the achievement of the purposes of education Among the conditions essential to growth are first, those resident in the environment, and secondly, those resident in the teacher The factors in the environment chosen for emphasis were (1) personnel practices (2) housing and home conditions (3) community attitudes, (4) the school plant and working equipment and (5) staff relationships The factors resident in the teacher chosen for emphasis were (1) health (2) training, and experience of teachers (3) common sense and intelligence (4) drive (5) adaptability (6) aptness in human relationships, and (7) emotional tendencies Growing out of these two large groups of factors and their interaction arise the immediate attitudes, knowledges and skills that condition teaching efficiency These factors were discussed under three headings (1) motivational factors such as the teacher's desire to improve, willingness to try out new ideas and morale, (2) knowledge factors such as understanding the child the learning process, and the social order of which the school is a part, and (3) habitual modes of behaving that may limit or facilitate teacher growth Morale was thought to be an important factor in teacher growth The following principles of effective learning were emphasized in learning to teach (1) teacher growth activities must grow out of felt needs (2) the teacher's attitude is an important factor in learning (3) satisfaction and success must attend the teaching act (4) teachers differ in interests, needs, and capacities (5) learning is reacting and there can be no learning without it and (6) knowledge of progress in learning to teach is important In general, the leadership should be such as (1) to promote maximum growth, (2) to promote mental health (3) to release energy, (4) to encourage democratic cooperation (5) to promote effective methods of solving problems, and (6) to provide maximum opportunities for creative thinking—to enumerate only a few of the principles of good leadership considered important in facilitating teacher growth Two examples of leadership in action were cited (1) the West Dane County curriculum project, and (2) the Colorado Learning Conferences It was finally emphasized that help must be given to individual teachers in meeting their own felt needs

Exercises and Reports

1 Suppose that you are the learner whose effectiveness is to be improved What do you consider your chief assets? Liabilities? Choose one respect in which you would like to improve and indicate how you think you might proceed to get good results What difficulties do you anticipate? How do you expect to meet these difficulties? To what principles of learning do you expect to give major attention? How do you expect to determine whether you have learned?

2 Suppose that you are responsible for helping a beginning teacher in her first week of teaching What difficulties do you anticipate? How would you meet these difficulties? To what principle of learning would you give major attention? How would you expect to determine whether the teacher had been helped?

3 Suppose that you are responsible for helping a mature teacher in difficulty What difficulties would you anticipate? How would you meet these difficulties? To what principles of learning would you give major attention? How would you determine whether the teacher had been helped?

4 Assume some specific performance difficulty observed or reported to you by one of your teachers How would you proceed? What background information would you desire? To what principles of learning would you give major attention? How would you determine whether you had helped?

5 Suppose that you wished to make a cooperative attack upon some situation in need of improvement How would you solicit the assistance of others? How would you determine the respects in which the situation needs improvement? How would you choose the means and methods by which the situation may be improved? How would you reconcile differences of opinion about what to do? How would you evaluate the effectiveness of your efforts?

6 Individuals or small committees may present to the class summaries of research studies made on the typical difficulties of inexperienced and experienced teachers (This is important in connection with Exercises 2 and 3 given above)

7 The chapter indicates clearly that staff members often need to know far more than they do concerning some given area or topic as for instance child nature and needs the nature of the social order the nature of interaction between individual and social group and many others

Assume that a need has been discovered Describe a body of more or less well organized material bearing upon the problem and need which has been assumed Present in skeletonized form a program designed to initiate a cooperative study of this material Two or three students may report programs for class analysis A committee might work on an extensive illustration

Discussion Questions on the Development of Personality

1 Secure one or more of the so called tests for personality traits or character After studying the manual and any current discussions of use present a critical analysis The test may be tried on the class if desired

2 Review any current articles which discuss either (*a*) the rational or statistical identification of a trait or (*b*) the modification of a trait

3 Review similarly case study reports

4 If time permits and competent students are interested an analysis of cases may be made during the remainder of the term—an analysis similar to the study by Sister Mary Aquinas

5 A simple, brief exhibit and report may be made on teacher rating cards if desired

6 For most classes a review of the articles on originality by Cleeton, and by McClatchy, and the one on tact by Symonds (see footnotes) will be desirable

7 After careful study of the articles of Cleeton Miss McClatchy, and Symonds (and others if found in current literature) select a trait and attempt similar analysis This will prove to be a valuable exercise and doubtless should be a group project

8 Review selected studies on the relationship between traits and teaching success (This may be done by the instructor if deemed too difficult for some classes)

9 Describe as accurately as possible the very best high school teacher you had Consider all items making for successful teaching in the given case

10 Do likewise for the poorest teacher you can remember

11 Compile a short bibliography of investigations on causes of teacher failure Summarize and report

12 If time permits and competent students are interested an attempt may be made over several weeks to modify a trait of their own personalities Develop a desirable one or eradicate an undesirable item Make a careful plan first and keep detailed record of procedures behavior and results

13 Advanced students should review for the class any current discussions of personality particularly those which deal with personality as an organic whole

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XIII

The Improvement of Curriculums

A *curriculum* develops in answer to the needs of a group of learners, and to the demands of a given society A curriculum is made by a teacher and his pupils as they work together Teacher and pupils receive continuous assistance directly and indirectly from many persons and from many sources The superintendent, principal, supervisors, subject-matter specialists, school psychologists, lay groups and social agencies, advisory commissions all contribute, usually through the teachers' guides and through the curriculum-improvement program which developed the guides Many contributions are direct and made on the spot The development of a specific curriculum is, then, a cooperative activity in which many persons participate The curriculum, it must be reemphasized, is a process, not a fixed existence Caswell and Campbell[1] call it a synthesis or integration of the influences and elements entering into it Hopkins[2] in a stimulating discussion distinguishes between designing (the active process of meeting needs) and the design (a still picture of a moving process) Hopkins notes that many adults design a curriculum for other adults or for children who do not see the design since they did not participate in the designing

The amount of help or guidance a given teacher may receive from several sources will vary with amount of training, professional skill, and professional attitudes possessed Teachers of less training and with mediocre professional insights, attitudes and skills will of necessity receive far more guidance even direction than alert dynamic teachers One aim of in-service programs of growth through curriculum improvement is to raise the levels of teacher initiative and responsibility Educational workers in order to participate well in curriculum development will either possess or will develop in the course of the activity

1 A critically appraised philosophy of education
2 A clear conception of how the reorganization of experience or the integrating process proceeds

[1] H L Caswell and D S Campbell *Curriculum Development* (New York American Book Company 1935), Ch 1

[2] J Thomas Hopkins, *Interaction* (Boston D C Heath and Company 1941) Ch 9

3 Detailed knowledge of the growth and development of children
4 Skill in locating and developing pupil needs
5 Skill in developing the various specialized types of learning outcomes concepts or understandings, attitudes appreciations generalized abilities, skills functional knowledge
6 Knowledge of how and when to help children in selecting and using educational materials and experiences, how to guide without dominating

The writing of a *course of study* or *teachers guide*, or of *source units* is a specialized task requiring certain specialized skills, sufficient time, facilities, and money Committees or groups are given responsibility for developing a bulletin or series of bulletins known as the course The work is that of selecting, organizing, editing, and unifying materials from many sources into such form that the teacher may use it easily in the synthesis which is the specific curriculum

The modern course, as has been indicated, should grow out of a curriculum improvement program, or develop simultaneously with it This chapter will therefore open with a discussion of curriculum improvement programs

Types of curriculum programs Cause for initiating improvement of either course or curriculum usually is found in some dissatisfaction with results, or with some factor which contributes directly to results

Three types of improvement program are recognized by Saylor [3]

1 Programs designed solely for the preparation of courses of study
2 Programs planned in terms of course of study preparation but organized so as to promote acceptance of the completed course by teachers through participation of representative teachers in its preparation
4 Programs planned on a broad basis for the improvement of instruction with course of study preparation only one though an important aspect of the program

The three types illustrate the development of thought from the traditional preparation of formal, static courses to processes used in the modern development of dynamic curriculums

A *program of curriculum improvement* is far broader than the development of a given curriculum or the writing of a course or series of guides An improvement program includes study of all the major elements which affect the individual teacher's curriculum and which enter into production of documents A reputable curriculum program necessitates far-flung study by all staff members and by groups, based upon defined local needs The political, economic, and social structure and aim of the surrounding society, its hopes and aspirations, its tensions and shortcomings need to be understood Public opinion toward education must be known Programs of advice or information for the public may be part of a curriculum program The aim and philosophy of current educational prac-

[3] J Galen Saylor *Factors Associated with Participation in Cooperative Programs of Curriculum Development* (New York Bureau of Publications Teachers College Columbia University 1941) p 2

tice need to be studied and understood The nature of learners, their growth and development, their characteristics at various levels of growth all need to be examined and used The abilities, needs, purposes, and individual differences among learners must be studied The origin and nature of subject matter, the development of present curriculums, all need to be scrutinized The nature of the educative process and the effect upon it by persons and material facilities must be analyzed The nature of modern outcomes of learning and the many new techniques of evaluation need special study

A program of curriculum improvement will go further than developing curriculums in given classrooms, further than writing course-of-study aids A program of curriculum improvement to be successful must bring about many important changes within persons and within the elements constituting the setting for learning Changes within persons will be in their attitudes and understandings, in appreciations and skills Participants in a curriculum program will develop knowledge and conviction concerning the aim and philosophy of education in a democracy They will develop facile knowledge of the nature of experience as the essence of the educative process They will have a wider grasp of subject matter and better understanding of its uses They will learn better how to evaluate the complex and subtle outcomes of modern education

A program of curriculum improvement is a, if not the, major concern of supervisory leadership A staff engaged in such a program is demonstrating professional aims and attitudes, engaging in professional activities of the highest type A curriculum improvement program is the vehicle for most of the general supervisory program

SECTION I

THE PRINCIPLES GOVERNING A CURRICULUM DEVELOPMENT PROGRAM[4]

The discussion to follow draws heavily upon other summaries given earlier and hence is abbreviated and cross-referenced to avoid tedious repetition

1 *A dynamic leadership will accept from all sources suggestions leading toward initiation and development of curriculum programs* Leadership will assume that change is the order of the day, will provide for it This prevents crystallization and tends to prevent periods of violent disturbance from time to time The program will originate ideally in some on-going activity, interest, argument, criticism, dissatisfaction, suggestion for improvement, proposed new departure, individual experimental work underway Any item may be capitalized upon by the group under leader

[4] The writers acknowledge in connection with this chapter their great indebtedness to the manuscript of a recent book by Alice Miel *Changing the Curriculum A Social Process* (New York D Appleton Century Company, Inc 1946) and to Miss Miel's careful comments upon this chapter

ship In some instances it will be necessary and desirable to set the stage, to suggest, or in some indirect way to motivate the program To the degree that a suggested program meets the needs of the group and the actualities of the situation, it will be accepted The normal motivations of all human beings may be utilized readily A program may start in any of a score of specific ways and be based upon any aspect of the total educational program A wide survey of programs now operating in the country reveals a number of procedures

The more dynamic procedures seem to be as follows

a Utilize the results of the evaluation program
b Focus at first may be upon the improvement of whatever teachers and other staff members are now doing

This is one of the best attacks All earnest teachers are interested in improving their knowledge and technique They will ask questions and bring problems to a group discussion when democratic leadership prevails A program of improvement should not be imposed, but assistance offered upon problems as met by teachers Modern and traditional teachers will be interested in improving different things and will not always agree on what constitutes improvement Discussion develops which leads naturally to study and eventually to more organized attack Discussions growing out of disagreements upon techniques and upon immediate practical problems understood by all teachers lead naturally into discussions of objectives, remote aims philosophic principles, scientific evidence Study of the background is thus approached functionally rather than through formal courses lectures or discussion of purely theoretical problems This heterogeneity of attack produces also a great variation of suggestions Creativity and originality of response seem to be strongly stimulated

c Encourage any teachers who are carrying on experimental work or who wish to do so utilize any creative contribution This is another equally dynamic and functional approach which will develop similarly to the second one
d Seize upon any discussion of a suggested new departure new research finding and so forth
e Utilize comments inquiries criticisms from parents and lay groups
f Ask for pupils statements of needs strengths and weaknesses in present curriculum
g Provide, when possible for discussion by pupils who have had experience under both traditional and modern curriculums

A good but less immediately functional method is to

h Initiate a community survey to determine needs, facilities, and possibilities

A community survey is also often used within a curriculum program as an important means

A reputable but still less dynamic method is to

1 **Engage in the study of a set of fundamental questions[5] concerning the nature of education, its relation to the individual and to the social order the nature of the learner and his learning activities**

The survey of the field revealed a number of other procedures said to be used to initiate a program, these procedures are more properly means used within a program Writers citing these as initiatory methods are overlooking some more basic item lying behind these means The following then are not actually methods of starting a program though often listed as such

a Call a series of conferences either within the professional staff or in conjunction with lay groups
b Organize a series of study groups either within the staff or with lay participation
c Organize intervisitation within the system, visitation to other systems, organize exhibits and visit other exhibits
d Examine a collection of courses of study
e Equip and open a local workshop or encourage attendance at summer workshops
f Organize formal courses at nearby teachers colleges or universities which the staff may attend
g Set up a curriculum bureau or planning council within the system
h Organize committees of teachers to study or to produce materials or to try out suggested organizations

Writers citing these as initiatory procedures state that such activities "sensitize the staff to problems leading to curriculum study This is a confession either of careless thinking or of failure on the part of the leadership An alert leadership and teaching staff will ordinarily have more problems than they can attend to comfortably

2 *An adequate process for achieving desired changes must be developed* The desired changes are not merely in materials and methods of instruction but in the beliefs, values attitudes, and practices of the persons concerned A successful process must therefore provide for (*a*) growth of the personnel (*b*) observable results within the instructional materials and methods These in turn produce a third characteristic of good process, (*c*) a desirable type of security within the staff, the pupils, and the community The process must also provide for (*d*) continuity of effort

A few persons are irritated at discussions of process They focus on the goal and drive toward it regardless of methods used A number of evils result, not the least of which is that the chosen goal may not be reached at all Others regard process as a collection of clever techniques, "tricks of the trade" a list of "how to's" This gives rise to distrust and suspicion of process, it is merely manipulation and becomes an end in itself Process should never be regarded as a set of techniques, should never be permitted to become an end, it must be designed for solving

[5] An illustrative set of questions for discussion is found in Appendix B

stated problems within a given setting We may disregard those who regard attention to process and its control as futile The result is *laissez faire* and drift Progress is not possible without attention to and effort to direct a desirable process

The process which seems to carry the best guarantee of success is that of participatory group study, group decision and try out, and continuing study *All the facts are not in, dogmatic statements are not warranted in* social problems The best available evidence however, now points to the cooperative democratic process as desirable This calls for wide use of the techniques of group discussion and action, division of labor careful record keeping of discussion decision and try-out, continued critical analysis of records and observed results The principles and mechanisms for operating participatory programs were outlined in Chapters II and III The emergence and use of study groups, workshops conferences, intergroup effort and other subsidiary techniques are outlined in Chapter XV

3 *A functional organization and machinery will be developed* An organization of some sort is necessary to carry forward any complex undertaking An error of the past has been to assume that the *form* of the organization was the important thing instead of *functional relation* to problems and needs under consideration

Caution concerning the uncritical acceptance of organizational forms Far too many curriculum programs have accepted a formal organization developed *logically* or developed *in some other situation* and imposed it upon the local program Trillingham examined the organization of curriculum programs in several large cities and found a general pattern operating[6]

1 The superintendent of schools initiates the curriculum program and is *ultimately responsible for the curriculum*
2 In direct charge is a curriculum director, assisted by a curriculum specialist or consultant who is to aid and stimulate teacher groups and critically evaluate the progress of the curriculum program
3 A curriculum council or cabinet is chosen by the superintendent to determine the philosophy of the school and general guiding principles, 'to set up general objectives of the program' to serve as a clearing house and finally to approve work submitted by various committees
4 An aims committee has the job of formulating the aims of education and determining the program of studies to be offered
5 A production committee for each subject and each division that becomes active determines subject aims subject content, pupil activities materials and so on
6 A course appraisal committee for each new course of study oversees the try outs of new materials
7 A course installation committee sees to it that the course is properly installed after study by the principals and teachers who are to use it

[6] C C Trillingham *The Organization and Administration of Curriculum Programs*, Education Monograph Series No 4 (Los Angeles Calif University of Southern California 1931) summary based on Trillingham's recommendations

8 A continuous course improvement committee keeps bringing the course up to date

The program was then recommended for general adoption anywhere It violates the first principle of good administration namely, that organization should develop functionally The recommendation rests upon several naive but serious errors in thinking

1 Programs are to be launched from the top down, the administration taking all responsibility for initiating, organizing and carrying on This reverses the desirable order
2 Programs start with statements of philosophy or viewpoint developed by a few "leading thinkers and handed down to the whole group The philosophy and aims are then broken down mechanically into smaller area aims materials and teaching organizations are developed in order This reverses the psychological order
3 Programs are system wide procedures instead of being initiated, based upon, individual classrooms or buildings with coordinating mechanisms developing as needed
4 Programs of curriculum development are dearly confused with programs of course of study writing The two are not like
5 The learners and the lay public are ignored in this suggested organization

The specific characteristics or details of a desirable organization for a curriculum program cannot be suggested in advance Doubtless Trilingham would not today adhere to his recommendation of eleven years ago The number, size and kind of committees cannot be stated in advance nor interrelationships indicated Any and all kinds of study groups, production committees, experimental groups, editing committees may appear A succession of leaders may arise to serve different purposes Consultants and specialists will be called on as needed

The situation here is similar to that of developing a functional organization for administering a school system The functional organization, as indicated in Chapter III, may appear to be very similar outwardly to the formal So it is with organization for curriculum improvement The differences however, are more fundamental than the likenesses The functional organization grows up from the problems and is fashioned to meet needs The formal organization grows down from the central authority and is fashioned to meet abstract logical principles The differences in general structure in number and names of committees in provisions for intercommunication may be slight, but they are the key to the basic principles organizations must grow out of needs, that is, be functional

Some general characteristics of a desirable organization The following summary emphasizes points presented many times in preceding pages The curriculum organization devised in any given situation

1 Should grow out of the problems found there
2 Should be close enough to the actual problems and be flexible enough to ensure free flowing interpersonal exchanges to ensure the utilization of

the contributions of many types of persons within typical heterogeneous groups including pupils and lay groups

3 Should provide for the necessary coordination between groups and units within the system as the program develops from its simple beginnings

4 Should provide for continuity of effort

5 Should be subservient to its purpose and not become the important feature of the situation

6 Should develop all committees functionally as needed to serve temporarily or with membership rotated

7 Should develop all standing committees to deal with major persistent factors (Membership may rotate under a stagger system)

8 Should develop a general policy under which the group operates (Sub committees are thus given power to act under policy)

9 Should keep records, publish summaries and eventually produce materials of use in improving instruction

A democratic functional organization for a curriculum program is desirable *first* because it is the most efficient method in the long run *Second* it provides full opportunity for individuals and minority groups who often have important contributions to make *Third,* it is likely to encourage and to utilize social invention *Fourth* it ensures as far as anything can ensure group solidarity growth for individuals and groups and accomplishment all of which give that security necessary to mental hygiene Accomplishment of desirable results is more likely to ensue

Participation is the keynote of local programs The best situations use cooperative group study of local problems in committees in area or regional conferences in local workshops or those in nearby institutions Extension courses and summer school work are also widely used The amount of cooperation differs widely within and among local units since this depends upon local leadership and enthusiasm The state and city administrations will encourage stimulate and aid but will never impose or coerce the local programs

A range in teacher participation from 1,500 to 30 000 has been shown between two well known state programs The Kansas program indicates participation as follows [7]

The large number of teachers who participated in study groups indicates that Kansas teachers are seriously desirous of improving their teaching There were organized in the state during the year approximately 17 large study centers, and work of some type was carried on in 101 counties and in 55 first and second class cities Approximately 100 parent teacher association groups gave special study to the lay bulletin

The Virginia program which was probably the most widely participatory of all programs so far noted the following methods of *participation* [8]

[7] Guide for Exploratory Work in the Kansas Program for the Improvement of Instruction Bulletin No 3 (Topeka Kan State Department of Public Instruction 1937) p 13

[8] An excellent account of the details of the Virginia program is found in the monograph by Saylor *op cit*, Ch 5

1 The group study program
2 The preparation of curriculum materials
3 Service on various committees on many aspects of the program
4 Try out and experimentation with new and illustrative curriculum materials
5 Conferences of all kinds
6 Utilizing consultative and advisory services provided by the state department

Factors which facilitate or discourage cooperation and participation

The two preceding principles indicate the fundamental importance of wide participation by the personnel How can this be stimulated? What are the obstacles? An excellent study of this factor in the Virginia state program was made by Saylor[9] His general conclusions have been corroborated by other fragmentary studies of various programs He lists the chief facilitating factors as

1 Dynamic competent leadership
2 Economic ability sufficient to finance a good program

The two factors are interlocked Good leadership is undeniably attracted by better rewards and by better support of the program High economic ability is however, no guarantee of competent leadership Many wealthy systems employ mediocre leaders and teachers Good leadership is sometimes found in systems of low economic ability exercised usually by young men and women on their way to better positions

The economic factor does clearly affect items which facilitate cooperation

a Provision of competent and sufficient supervision
b Provision of better salaries and conditions for teachers
c Provision of more generous supplies of books instructional aids, and other material factors

Saylor notes a further factor which becomes of great importance in rural states, or rural areas within states

3 Physical and cultural isolation

The general challenge in curriculum programs is to provide in so far as humanly possible, the factors which facilitate cooperation and to prevent or alleviate the effects of weakness in those factors

Saylor believes that leadership is the critical factor, going so far as to say [10]

In fact, a dynamic superintendent of schools can if he so desires probably overcome almost any handicap to participation by his school system in a state cooperative curriculum program of the stimulative type organized in Virginia

[9] *Ibid* Whole volume but Chs 3 and 8 particularly

[10] *Ibid* p 234 Saylor presents excellent detailed data for all the points developed Space prohibits extended reference Students and field workers should read the original study

Isolation as a factor presents one of the most direct challenges in any program Urban situations and non-isolated rural areas are likely to possess good economic ability, first class leadership, reasonably well-trained and paid teachers, ability and willingness to carry on a competent program Cooperation is not too difficult to secure if the leadership is good Isolated communities, on the other hand, are not handicapped merely by distance and transportation difficulties which make supervision, intervisitation and various cultural contacts difficult Isolated communities develop a feeling of segregation and neglect They become sensitive about backwardness, feel hopeless about improvement and develop unconcern, if not antagonism, toward developments in more favored areas

Saylor believes that the Virginia program did not always succeed in securing active participation in the more remote rural and isolated areas, low in economic ability and lacking leadership The program was one of the earliest state programs and doubtless progress has been made

The developing program in Maine has the problem of isolation in serious proportions Distances are great and Maine contains a large area of unorganized territory The challenge is being met squarely by the state department Maine has the only state officer 'in charge of unorganized territory' in the United States The general consultant has visited a number of the most isolated one room schools to observe conditions to get the teachers problems at first hand, thus to participate in developing aid for these teachers The state supervisors and district superintendents make earnest effort to bring supervision to these isolated schools The 1935 workshop included a rural section Teachers in this group attacked their own problems with vigor and produced excellent materials which will become a state bulletin for distribution among rural teachers

A desirable curriculum program will make definite provision for certain types of participation Discussions of the functional approach have made clear first that the widest possible participation by teachers principals and all types of supervisory and administrative officers is vital Second, participation by consultants, both general and special, and by small specialized committees will be provided Third, the participation of lay groups will be greatly extended over that provided by early programs The details concerning the first two groups have been made amply clear throughout this and other volumes Lay participation needs a further brief note

Lay groups serve best as sources of public opinion concerning the strength and weakness of current programs, of opinion on the soundness of proposed improvements Lay groups render excellent service in helping to develop general policy through discussions with professional leaders They serve also as sounding boards before which to present explanations or denials of criticism, explanations and research backgrounds for new developments Convinced of the soundness of technical explana-

tions made by the professional staff, the lay participants then become centers for dissemination of information about and support for the new program Proposed improvements, no matter how sound will fail if public misunderstanding arises, are far more likely to succeed if there has been public discussion and review Lay participation is not to "sell" a program after its development, but actually to aid in the development of the new program Definite provision for study by lay members must be made, not of technical details but of general principles and trends

Inert professional leadership in a few local communities has given rise to initiation and direction by an exasperated public of an improvement program with the professional staff subordinated or ignored The results are usually disastrous Lay groups should not be asked to make decisions on technical problems but rather to demand clear non technical explanations, convincing to the public[11]

1 *The program will be based upon a geographic and administrative unit small enough to permit face to face contact, with provisions for necessary coordinations among small units* A city or statewide attack upon improvement of instruction is likely to become a course writing program because of sheer size of the situation Participation by personnel is of necessity limited to representatives, thus curtailing opportunities for growth by the whole group Courses are written with varying degrees of participation and presented to the total group for approval and acceptance Extensive tryouts are sometimes used to reduce the gap between the materials and the total group

The individual school is increasingly used as the unit in modern programs Small districts may be used in small towns or in semi-urban areas The Maine program began with the individual classrooms and is developing appropriate coordinations

The advantages of the individual school as unit are *first* that the school staff and local community have in most instances come to know each other The resources of the community are known The patrons have some understanding of the aims and methods of the school *Second* the ideal situation for curriculum development exists and is under some control a known group of learners within a given setting *Third* face to face contacts between persons engaged in a common task are usually far more satisfactory than exchanges over a distance *Fourth* participation by all is more easily arranged The principal, the teachers the pupils

[11] For good detailed discussion see

Caswell and Campbell, *op cit*, pp 473 480

Suggested Procedures for Curriculum Construction and Course of Study Building 1934 1935, Publication No 179 (Raleigh, N C State Department of Public Instruction 1934) p 8

Arkansas Congress of Parents and Teachers Arkansas Cooperative Program to Improve Instruction Study Program Bulletin No 1 (Little Rock Ark, State Department of Education 1933) An unusual bulletin produced by a workshop committee

Problems Confronting Boards of Education A Manual for Community Participation in Educational Planning (Albany N Y State Department of Education 1934)

the parents and others interested may each have responsible and important parts in the program *Fifth*, the large group of indifferent members of a social group can more easily be interested and drawn in by their own neighbors and because the problems can be brought home sharply

The heterogeneity of attack through small local units stimulates originality and individuality in meeting problems The chances for social invention, for the development of new departures, for genuinely creative contributions are multiplied The advantages of this 'broken front' attack must not be lost, however, through pure scattering of effort, or through attention to diverse fragments Balance must be secured through coordinations of various types Certain needs are common to many units Agreements on certain specified instructional policies and practices are necessary for the development of rounded programs

Coordinations within the school itself may be secured, *first* by constituting the faculty a committee of the whole In larger schools a representative committee or council may be used Needs common to several areas within the school, and the common agreements referred to above may be worked out through these agencies The student council is also a coordinating device of this type Coordinations between schools will thus be, *second*, an extension of an already familiar technique In large cities, *third*, there will be more numerous committees and a central council These will include committees and conferences for interschool effort as well as for wider coordination An excellent method of securing coordination is *fourth*, to have all members of the central staff participate directly in activities on the local firing line First-hand contacts of this type will greatly aid common agreements understandings between groups, and closer coordination of activities between the center and the periphery The interchange among units of any advances made anywhere within the system not only accelerates the program but is another method of coordination Discussion will be curtailed at this point because of statements in Chapter III and in preceding pages concerning mechanisms for coordination

5 *A balance must be maintained between gradualism and rapidity* Social change is a long, slow, tedious process Human beings simply do not change ideas easily and quickly, especially ideas dealing with any aspect of organized social life Ideas dealing with mechanics, machinery material things will change far more rapidly but we can make no such assumption about changes in more subtle affairs Time and study plus demonstration continue over a period of time A curriculum program must, therefore, be a gradual progress At the same time, however, it must be kept ever in mind that "civilization is a race between education and disaster" We must not be misled by those who mouth the old cliché, 'you must not go too fast" We cannot sit around and wait for progress to take place The deliberate control of social change is necessary Proceed at a pace consistent with the development of social thinking—but do

something to accelerate social thinking! Recent developments in the physical sciences make imperative an acceleration of the process of social change

6 *The necessary financial aid, material facilities, specialists, and adjustments on the loads of local participants must be arranged* This principle is self-explanatory Its importance was indicated in preceding discussions of factors facilitating participation

7 *A program must justify itself through continuous evaluational processes and summaries thereof* The techniques which are applicable here were illustrated in Chapters VI and XVI Other illustrations are available in the literature

SECTION 2

THE GENERAL CHARACTERISTICS OF LONG TIME CURRICULUM PROGRAMS

A number of curriculum programs have been under way in certain states and cities for some years New programs are being initiated constantly

1 *Selected State Programs*

A score or so of states now have programs of curriculum improvement as a regular part of their educational activities Wide influence is exercised on local programs through leadership from the state department[12] State programs are in fact almost equivalent to local programs in rural and village and county schools The larger independent city districts may be included or may maintain their own programs The leadership in state programs must, in fact, be careful not to overinfluence local situations with their particular needs and resources

The first of the extensive programs was the Virginia project which began in 1931 and which exercised great influence on many later programs Improvements in principle and practice have been contributed by succeeding programs

The Mississippi program[13] Another early program which set forth in some detail the proposed activities started in 1934

> The first year will be spent on study analysis, and discussion of our present program and of our educational needs Attention will also be given to possible methods of improvement Study and discussion groups will be organized throughout the state Every effort will be made to assure such groups a profitable period of study Materials are presented in this bulletin which suggest general areas and procedures for study Members of the State Department and of the higher institutions of learning, will provide counsel and guidance The central

[12] See particularly William A Alexander *State Leadership in Improving Instruction* (New York, Bureau of Publications Teachers College Columbia University 1940) and Saylor, *op cit*

[13] 'Mississippi Program for the Improvement of Instruction Study Program Bulletin No 1 (Jackson Miss State Department of Education 1934) pp 8-9

state committees will be at work during this time preparing materials for guidance of the second year's work

During the second year the teachers of the State will be encouraged to make exploration into new materials and new procedures These materials will be appraised and organized by state committees

The work of exploration and expansion will be continued during the third year and at the same time, materials previously collected will be put into the hands of selected teachers to be tried in practical classroom situations

A further extension of the use of new materials by all teachers will be encouraged in the fourth year Provisions will be made for the continuous revision of the instructional materials

During the fifth year, materials which have been selected from the work of the preceding years as being of special value to all teachers in the State will be made available on a state wide basis and teachers will be aided in their use

The Kansas program developed as it progressed Bulletins in 1936 and 1937 stated frankly that educational development in Kansas had not kept pace with other regions A program of improvement was initiated [14]

The program is planned on a five year basis and finances are available for one years work It is hoped that the results of this years program will justify its continuation The program of the first year is a study program which in the spring will pass into a survey phase and out of this phase will be developed ways and means of solving the problems discovered

The plans for the program from year to year as indicated above are highly general in nature Those directing the work are sincerely desirous of making the program consider the problems and needs which are of significance to Kansas teachers To facilitate planning for the second years work a summary sheet was sent to all study groups by means of which they could make recommendations for the further development of the program

The objectives for the second year are as follows [15]

1 To extend the study program to school and lay groups which did not participate in the work last year
2 To accomplish an understanding of and agreement on a tentative statement of the point of view and aims of education which shall guide in the further development of the program
3 To accomplish a tentative agreement on certain issues relating to the plan of curriculum organization so that an outline of scope and sequence may be prepared for the later comprehensive development of the curriculum
4 To make a beginning in instructional reorganization

The program in Tennessee is very similar to that in Kansas but with considerable activity by teachers in summer workshops developing the study guides and bulletins

The Michigan state program The state department of education in Michigan does not seek to impose a curriculum upon the state but rather to encourage local leadership to develop its own curriculums The state

[14] The Study Bulletin for the Program for the Improvement of Instruction' (Topeka Kan State Department of Public Instruction 1936) p 6

[15] A Guide for Exploratory Work in the Kansas Program for the Improvement of Instruction *op cit*, pp 13 14

department aids in planning, in appraisal in supplying consultants and other aids A twelve-year program is under way [16]

The Study is to be conducted over a span of twelve years divided into four parts The *first* phase, one year in length, will be a period of refining and maturing the general plan of the Study and particularly for reviewing the potential contributions from previous and current studies The *second* phase covering four years will consist of the experimental trial and evaluation of the immediate results of the most promising practices that can be discovered The *third* phase covering four years will consist of the transfer and extension of plans that have seemed to work well in a number of schools During this phase and the *fourth* phase emphasis will be placed on the evaluation of the deferred outcomes The fourth phase of three years will be a period of summarization and extension of best practices in secondary education throughout the state Obviously, there will be no sharp line of separation among the four periods

Bulletins to guide study of problems, for self survey, and for guidance in curriculum construction have been issued or are in press Regional conferences, study groups, attendance at courses, are prominent activities

The Oklahoma state program [17] A program to cover four or five years was planned in 1940 1941

1 A period emphasizing study and policy making
2 A period emphasizing exploration
3 A period emphasizing survey
4 A period emphasizing organization problems scope and sequence and the like
5 A period emphasizing evaluation

The Maine state program The Maine program is indebted to preceding projects as are all current programs, and is developing some principles and practices of its own The following account was prepared by the writer who has been general consultant since the beginning

The program is of interest since it started during wartime and was sharply curtailed almost before it got under way It was proposed to devote five years to orientation, a study program, the development of personnel and organization and to the beginnings of development of materials by teachers Detailed prediction of specific developments was avoided, general procedure to emerge as conditions and increasing insights warranted The rationing of gasoline and the regulations of the Office of Defense Transportation prohibiting regional meetings interrupted the proposed procedure Accepting the challenge, the state personnel has demonstrated what can be done under severe limitations of money and staff, complicated by wartime conditions Truly serious obstacles were overcome

Two replanning conferences were held immediately upon conclusion of

[16] Michigan Program of Curriculum Revision Second Report of Progress,' Bulletin No 305 A (Lansing Mich State Department of Public Instruction 1937) p 7

[17] "A Guide to the Study of the Curriculum Parts I and II Bulletin No 1 (Oklahoma City Okla State Department of Education, February 1941), p 5

the war at which original plans were reshaped and new ones made in the light of two years' experience

a Conditions giving rise to the program The state course for elementary schools published in 1931 is organized partly by subjects and partly by modern unified areas of experience Differing interpretations were thus natural Systems differed widely in the amount of use made of this course A number of superintendents, teachers and state department staff members over a period of years brought in a number of new ideas and suggestions Superintendents and state supervisors commented often upon the strengths and weaknesses of the pre service training in the normal schools, these schools commenting similarly upon local in service study programs on local policy and facilities Teachers and the public in Maine are definitely interested in education and questions are often raised Discussion and informal contacts throughout the state were constructive and friendly in tone, finally focussing upon the desirability of improvement in the printed course

b An informal conference was called by the commissioner The state commissioner of education invited the normal schools, representative superintendents state supervisors and a consultant to participate in an informal conference upon instructional problems Teachers and lay leaders were to have been included but short notice precluded this All groups have been included since in the developing program Three sessions of animated discussion turned upon (1) rewriting the present course, (2) supplementing it with a continuing series of bulletins or (3) embarking upon an extensive program of curriculum improvement The last was chosen

c The state department, the normal schools and the university the superintendents the teachers begin to organize a program The superintendents devoted one day's session of the annual convention to questioning and discussion The teachers' annual convention provided several addresses and discussion periods The normal schools and the state university were asked to suggest the contributions they believed they could make to the development of state wide program

d General principles and procedures develop Conferences interviews field reports and correspondence developed the following principles and procedures

1 The proposed curriculum program will make its primary attack upon improving the work of classroom teachers in doing whatever they are now doing
2 Leadership will be vested in local superintendents and their teachers Assistance will be on the service basis in answer to direct questions from the field, and given by the state department the state normals and university and the general consultant Special consultants will be called in as needed
3 A common understanding of aim and philosophy of viewpoint, recognition of the necessity for a survey of needs, will emerge out of the efforts to improve instruction The scope and sequence will emerge similarly
4 The machinery of committees councils channels the additional personnel will be developed as demanded by on-going activities
5 Written courses of study bulletins will grow out of the curriculum program rather than vice versa

Activities were suggested as follows

1 A series of regional conferences based upon questions submitted in advance by teachers and superintendents
2 Local study groups based upon the immediate problems and questions of the teachers concerned

3 A series of bulletins in answer to pressing needs as demonstrated by questions submitted and by the regional conferences
4 A workshop for teachers sponsored by the state department and staffed by the normal schools and the university

These procedures were to have operated for one or two years for the purpose of orientation and preliminary exploration An organized study program would develop, it was hoped, out of these activities The production of new materials by individual teachers experimental try-out, and continued study would lead to the request for coordinating effort to the development of personnel and machinery for carrying on an ever wider program Eventually a continuous program of curriculum improvement, including extensive production of course of study bulletins would emerge War restriction on transportation and meetings delayed and changed the program but did not dampen enthusiasm or effort

e Local study groups and regional conferences A very few local study groups led by alert superintendents existed prior to the state program The 1944 summer workshop greatly increased local interest in study and try out led by returning teachers Local study groups so far are uncoordinated but requests are arising for state wide study of given problems Requests for bulletins, bibliographies for definite sources, and for specific guidance in carrying on group discussion are steadily increasing

Two excellent regional conferences were held before prohibitory regulations became effective Nine districts approximately 450 teachers and 25 lay participants were served Meetings were based on specific questions submitted by teachers through their superintendents Meetings will be reinstituted in the near future

f The 1944 summer workshop Interest was such that enrollments had to be apportioned to districts A total of 172 participants appeared, including 27 superintendents, 2 normal-school principals and other staff members Accomplishments in a three weeks 'blitz' session were remarkable *First,* a series of bulletins was suggested by the students *Second,* approximately fifteen students on their own initiative produced materials for basing teaching upon a survey of local community needs industries resources and so forth *Third* questions leading toward the more remote aspects of the program, well beyond local improvement began to appear *Fourth,* the necessity of public participation was recognized and discussed *Fifth* the superintendents asked that an unrehearsed teachers meeting be held to demonstrate the cooperative initial planning of a local program One unlooked for result from the demonstration was an expression from participating teachers that they had gained an understanding not previously possessed concerning the problems of the superintendent

g The first bulletins appear Bulletins so far issued include
1 'A Summary of Suggestions for Initiating the New Program Locally' (Prepared by workshop group 1944)
2 "Selected Illustrative Teaching Units" (Prepared by individual members and selected by a committee from the state department)
3 'The Teaching of Art in the Modern Way (Prepared by a committee of teachers led by a normal school staff member)

h The 1945 summer workshops Efforts by last summer's students to try out their improved teaching plans resulted in vigorous demands from all over the state for more background supporting the newer methods (This had been anticipated by the leaders)

At one of the normal schools a six weeks workshop was held based upon studying children in action in the campus school Excellent materials were produced and an inclusive bibliography developed These materials were carried over into the larger workshop which followed

The 1945 general workshop with enrolment up to 192 met the demand for more background by including organized study of the characteristics of learners at different levels of maturity The program is thus orienting itself toward organization on the basis of the learner and his society and not upon the basis of logical subject matter

Demands arising during the year resulted in the formation of teacher committees within the workshop to start work on state bulletins

1 'The Improvement of the Junior-Primary Program'
2 "Aiding Teachers to Make the Transition from Traditional to Modern Methods"
3 Aid for Teachers in One Room Rural Schools'

A third workshop was held in 1945 for teachers in one room rural schools sponsored by the normal school in the remote northern tip of the state

Excellent beginnings were made Participation will be widened during the year as these materials are worked over by many teachers in the field before being finally edited and published

i Other bulletins proposed In addition to the three mentioned three other problems susceptible to bulletin treatment were mentioned but committees did not arise These will be worked upon by the state department and selected public school personnel during the year

1 Public Relations for District Superintendents
2 A Guide to Curriculum Development in Rural Districts
3 Principles and Techniques in Handling Group Conferences and Discussions

Four of the six proposals are definitely planned for publication during 1946 1947

j Replanning Replanning conferences concluded that the superintendents as local leaders now freed from some wartime pressures should be given aid quickly Two conferences subsidized by the state were held with 40 superintendents in each These with the 47 reached in the summer workshops include over two thirds of the district leaders Superintendents in these conferences studied the items previously requested from the field and upon which workshop comment had been focused

1 The Characteristics of Children at Different Levels of Maturity
2 Making the Transition from Older to Newer Methods
3 A Public Relations Program for Superintendents
4 The Development and Management of Local Study Groups
5 The Techniques for Handling Group Discussions

k Developments now emerging The state university has volunteered, first to initiate through the extension department study of local communities, methods of survey, and so forth Second, both the university and the normal schools in cooperation have offered to aid local study groups with guidance and credit through extension courses The development of curriculum materials from local resources will be stressed

Regional conferences will be reinstituted in answer to requests

l Additional personnel provided for the program A deputy state commissioner in charge of instruction and a coordinator of elementary education have been added to the state staff Vacancies in the staff of field supervisors have been filled so that four are available Formal state councils and committees have not emerged but should in the near future as the study program proceeds

The characteristics of state programs of curriculum improvement The common features which are desirable seem to be as follows

1 A period of initiation
2 A program of study definitely organized around important local and state problems of instruction Study guides, bibliographies instruments of appraisal, questions are incorporated into bulletins
3 The development of necessary study groups, conference organizations, committees and councils workshops methods of coordinating out of the on going activity (Sometimes these are organized in advance and direct the program from the top)
4 The development of agreement upon philosophy and aim upon scope and sequence, instructional organization, methods of evaluation, etc, similarly out of the on going activity
5 Consultants—one or more general, and any number of special—are provided as need arises
6 A series of course of study bulletins of temporary nature is issued based upon the extensive experimental work try-out and local reproduction which has been going on during the study and improvement program Course of study bulletins whether printed or mimeographed are in the better programs always undergoing revision
7 The emergence of a continuing flexible program for continuous improvement of the instructional program

B City Programs

The number of programs under way in cities and small towns is so large that to illustrate them seems almost presumptuous There can be no guarantee that any listing of cases can include all the desirable discoveries and inventions in the field The following selections make no pretense of being exhaustive

The Philadelphia program The following description of procedures in Philadelphia is deliberately lengthy because of the excellent insight provided in the development [18]

How the Program Began

Prior to 1938 the social studies program in the elementary schools of Philadelphia was outlined in separate courses of study in history, nature study and geography civics and safety There were 'official' courses of study prepared by administrative officials with the assistance of such persons as they wished to consult At that date however there were already many persons who wished for a more flexible program that would encourage more individual initiative and would lessen the separateness of the various subjects

In 1938 the Philadelphia Board of Superintendents issued a curriculum letter that was intended to mark a first step in a program of curriculum revision "It is generally understood that one of the pressing problems before the schools of Philadelphia is a comprehensive consideration of the school curriculum Plans for a general study of this problem will shortly be underway

The daily programs included in Helps for Teachers, No 143, were prepared as suggestions There is no reason for adherence to these specific programs where in the judgment of the teacher and principal the needs of the pupils would be better met by deviations

[18] C L Cushman and John B Taulane, 'Curriculum Planning Is an In Service Job,' *Educational Leadership* Vol 3 (October, 1945), pp 13 15

"Schools are to be free to plan integrated units of work with the cooperation and authorization of the district superintendent"

The "general study of the curriculum" promised in the 1938 letter was undertaken five years later. During the intervening years, and under the freedom of this new policy, there were many changes made by individual schools and individual teachers in the social studies program. Many daily programs were made more flexible. Some teachers tried unifying instruction in the various social subjects. In some schools groups of teachers began to plan cooperatively the work to be done. Most important of all, many attempts were made to relate work done in the schools to the lives of children and their parents in out-of-school situations.

Two Ways of Working

When in the fall of 1943 it was decided to undertake the revision of the elementary social studies, there were two general courses of action that were considered. One of these was to make an intensive formal study of social studies instruction, including the nature of the social scene, the responsibility of the schools, the ways children learn, the evaluation of teaching, and other similar matters that are common to curriculum revision programs. This course of action would have led to the publication of a new bulletin that would then have been studied by all teachers and put into effect in the schools.

The alternative approach for the work in social studies was to move immediately to a program of action in all schools. This was the approach adopted.

Many schools had already made real progress. All schools might be encouraged to try their hand at those things which some schools had found good. As this was done, it would be necessary and practical to study critically these pioneering efforts. There would of course be need for the introduction of new ideas, and the organization of the old and the new into a sensible total program.

The foregoing sounds involved—perhaps because, like all social change, it is involved. In essence, it meant continuing to make some use of old courses of study, making considerable use of the many new ideas that progressive teachers and schools had introduced into their programs, and simultaneously bringing in many other new ideas. All of this was to the end that within a period of five or six years we might have an acceptable program for the social studies with teachers ready and able to put it into action.

Either of these approaches would have required a careful integration of in-service education, the production of curriculum materials, and supervision. If the first approach had been adopted, many, or perhaps *all* teachers and principals, would first have been involved in an extensive program of study that would have required reading, writing, and discussing. This would have contributed to the production of curriculum plans and materials. Obviously, it would also have contributed to growth in service. Supervisors and directors would have been brought in, and certainly they would have maintained that this was a vital part of the supervisory program.

The integration of the three types of service has been even more pronounced with the second approach. This can be explained best by describing briefly what has been done to date, and what is contemplated for the years ahead. The social studies committee for the elementary schools has come to see its work as divided into five periods of time. The emphasis in each period has been, or will be, on one phase of social studies teaching.

What Has Been Done

During the first period of time the committee's emphasis was upon the relation of instruction in social studies to community living. An initial publication en-

titled *Our Schools and We Philadelphians* served as a guide for study and action during this period All teachers and all schools were invited to share in a program that would enable them individually and collectively to see how the work of the school and social living in the community can be made to enrich each other Difficulties and successes were shared through written reports and many conferences, some within individual schools and others among neighboring and district schools A school principal was freed from regular responsibilities to visit schools Assisted by other supervisors, he had the job both of giving and collecting ideas

During the second period of the program the period in which we are at present the emphasis of the committee is upon effective unit teaching Teachers were invited to submit written description of units that had been developed in their classrooms More than five hundred responded In some cases the units described were subject based with little evidence of any relation to the lives of the learners Many others, however, got right at vital matters in the lives of pupils and parents

From the description of units that were submitted the social studies committee prepared a tentative edition of a curriculum publication entitled *Living and Learning* Copies of this were submitted to all schools for comment and criticism Teachers were asked to consider such questions as the following Did these units suggest a direction in which social studies instruction in Philadelphia should go? Had the committee succeeded in giving all teachers helpful suggestions for moving toward good teaching? Did the committee's program offer a practical means of transition from the former separate courses of study to a new fusion of subjects These and other questions were first discussed in the school and then in a conference of all principals supervisors and some two hundred teachers from all schools

What Does the Future Promise?

In the fall of 1945 a revised edition of *Living and Learning* an "On-Our-Way publication will be distributed to all teachers This will be used as a guide to study and action in the development of effective unit teaching During the year there will be many requests for help from supervisors, principals and members of the committee But there will also be many invitations to "come and see what is succeeding And this will provide a host of added ideas for later years

The committee has tentative plans for third and fourth periods to be used in determining the scope of the instructional program and in developing a plan for the sequence of study from grade to grade Here again the aim of the committee will be to move through conference and study from the best ideas already in effect in the schools to a plan of scope and sequence that will be both intelligent and practical

The committee's proposed schedule provides for a fifth period to be used for the clarification of purposes or objectives and the development of practical ways of evaluating instruction It is of course true that no decision about instruction can properly be made without some attention to objectives What is proposed is that the preparation of a formal statement of objectives be postponed in the main until we have given extended consideration to what can reasonably be hoped for from a well planned program

If the hopes of the committee are realized this five- or six year program will eventuate in a curriculum bulletin By the time the bulletin is issued teachers will have become pretty familiar with most of the ideas that will be presented Indeed to a considerable extent it will be descriptive of the type of program that many teachers we hope a majority are already working out with pupils

Our experience in the foregoing program points to certain tentative conclu-

sions regarding in service education that merit consideration by all who are engaged in the improvement of instruction Attention has previously been called to the first and most important of these conclusions To repeat *in a well-planned program for the improvement of instruction education in service supervision, and the development of curriculum materials are in the main inseparably woven together both as to time place and person*

A second closely related conclusion is that *a major part of the in service education of the teacher or principal, or supervisor should be a direct outgrowth of the work of the classroom and school and neighborhood in which the individual is located* Such growth in service from the regular on going activities related to one's work will take place only to the extent that all parties concerned—teacher principal, supervisor, and superintendent—view the activities of each classroom as experimental in nature This makes the classroom a laboratory in which the teacher is trying constantly to produce good social living out of the various elements that are available to her—pupils parents, a community resources ideas and ideals

A third and final conclusion to which attention is called is that *mature and secure persons are those who consciously and openly seek personal growth in service*

Growth in service is undoubtedly essential to all else we would achieve through education Effective growth requires careful planning This planning should take account of teacher attitudes toward growth in service More important the planning should be a coordinated part of a total program for the improvement of school service

The New York City program Details of this program are set forth in explicit detail in the volume *The Activity Curriculum* and in a number of excellent bulletins The following quotations outline a few major considerations [10]

In October 1931 the Committee on Educational Problems of the New York Principals Association voted to make the activity movement the committee's major topic of study during the current school year

On February 8 1935 the committee recommended that a limited experimental activity program be initiated The recommendation was approved and the program was started in at least one grade in each of 18 different schools

In September 1935 the Superintendent of Schools approved the extension of the experimental program to approximately 70 schools for a period of five or six years In October 1935 an advisory committee was appointed

The year 1935 36 was regarded as a period of orientation During this year emphasis was given to the in service education of teachers through conferences and courses on the activity movement

In 1936-37 an extensive program of evaluation was formulated and the first testing program was administered in June 1937 in nine activity schools and in nine paired non activity schools Through 1938 1939 and 1940 tests were administered toward the close of each school term and from time to time the results were published in various educational magazines The Evaluation Program was a significant part of the Experiment and in its later stages paralleled the work of the Survey

Beginning with 1A and 1B teachers and those other teachers who volunteered to participate in 1935 36, and extending the program upward each succeeding

[10] J Cayce Morrison, *The Activity Program* (Albany, N Y State Department of Education and the New York City Board of Education 1941) pp 11 12

year, by 1939 40 more than 80 per cent of the teachers assigned to the activity schools were reported as participants in the activity program

In December 1938 the Board of Education recommended that the State Department of Education make a survey of the Experiment In 1940 the Legislature appropriated $10 000 for research $5000 for research in connection with experimental curricula in New York City Schools

In May and June the study was made consultants selected plans for mulated The Survey staff proposed to answer four questions

1 What are the distinguishing characteristics or concepts of the activity program as developed in New York City's curriculum experiment?
2 To what extent has New York City succeeded in actually developing the program conceived?
3 What is the effect of the activity program on the development of children with special reference to knowledge, attitudes and behavior?
4 What influence, if any, does the development of an activity program have on the teachers?

The volume indicated above contains extensive data derived in answer to these questions

The following quotation is illustrative of dozens of summaries on practically every phase of the program In starting the program the Committee recommended and the associate superintendent authorized a program which stressed the following ideas [20]

a Shifting emphasis in teaching from subject matter to the child
b Placing emphasis on creative work in art, music dramatics and construction
c Accepting the philosophy of education embodied in the Cardinal Objectives of Elementary Education
d Developing units of work by the teacher working with the pupils
e Educating teachers to an understanding of the theory and practice of the activity program
f Encouraging supervision that give teachers freedom to develop units of work and that assisted them in obtaining needed supplies, equipment and other helps
g Developing self control in children as opposed to control imposed by authority of teacher or principal
h Cultivating thinking through the use of research techniques in defining problems seeking and weighing information and drawing conclusions
i Using the library corner, the excursion and the discussion period
j Keeping records of work done by the group and by individuals e g , logs or diaries, scrapbooks reports of work accomplished and test results

In viewing the difficulties to be overcome, the Committee called attention to [21]

a The need for overcoming the fear and feeling of insecurity on the part of teachers trained in traditional methods and now asked to go along new ways
b The problem of guiding children in the transition from superimposed control to self control
c The difficulties in dealing with pupils and teachers who do not want to think to take responsibility, to exercise initiative

[20] *Ibid* , pp 15 16
[21] *Ibid* p 16

d The uncooperative home that thinks of education as the 3 R's and that wants no 'fads

e The need for revision of the curriculum particularly in grades above the fourth As illustrative of curriculum changes needed if the activity program were to succeed, the committee suggested that history and geography be combined as social science, that arithmetic be made more alive that the introduction of the formal teaching of spelling be postponed, and that selections made by children be included in the reading and memory courses

Brief report on the Denver program Curriculum development in Denver started long ago A long-term program has just been started of cooperation with the Horace Mann-Lincoln Institute of School Experimentation Previous cooperative studies had been made with the Progressive Education Association and with the Committee on Teacher Education The October 1945 *Newsletter* of the Committee contains the following summary [22]

1 Consideration of curriculum improvement and the continued education of teachers as almost identical processes and as processes which must have right of way

2 Streamlined organizations featuring wide cooperation for facilitating improvement Three committees on instruction Elementary School (16 members) Junior High School (30 members) Senior High School (24 members) and an executive Board carry the major load The Executive Board of twenty members acts both as a clearing house for committees and as an initiating body with specific responsibility for articulation of the work of the three levels of instruction

3 Provision of a fully comprehensive central supervisory service (15 members 1944 1945) with the function of working with principals and faculty in each building on a service basis

4 Recognition of the program in each building as it is initiated by the faculty as the central and basic unit of instruction

5 Focusing attention upon the most pressing problems which teachers face in their work with children Identifying these problems becomes the first step in the current improvement program

The Portland, Oregon, program is developing Wide participation is provided for teachers, supervisors, and principals Needs are discovered by any level of worker and at any place A Curriculum Council coordinates the work of many production committees, receives and studies proposals presented by school personnel or lay people makes recommendations concerning bulletins, materials and future developments A feature of this program is the extensive in service education The whole teaching staff practically, is engaged in this All types of extension courses, workshops, study groups appear Materials are being produced and long-time plans constantly developed as needs appear

The Louisiana Negro Normal and Industrial Institute cooperates in local community developments Excellent leadership is being supplied

[22] *The Newsletter*, Committee on Teacher Education American Council on Education, Vol 1, No 2 (October 1945), p 4

in a much needed area, rural schools for Negroes.[23] All the usual techniques of cooperative in-service programs appear but the important feature of the program is the work "on location" in community workshops by the college instructors.

An excerpt from the Minneapolis program. An interesting method of representing the flow of activity in a city system curriculum program is found in the diagram reproduced herewith and taken by permission from a mimeographed bulletin published by Minneapolis schools in March 1942.

The Saginaw, Michigan, system set up a curriculum laboratory with adequate materials.[24] Principals and teachers worked on many committees for study, for production of materials, for appraisal of policies and materials. Interested citizens were invited to participate both upon committees at work in the local laboratory and in advisory groups. A number of major committees emerged to be followed by many small committees on specific items. Committees disbanded when their work was accomplished and new ones emerged, thus providing wide participation.

The story of the development of a curriculum for the Wells High School in Chicago from the opening of the school in 1935 is a unique story in American education. The volume, *Developing a High School Curriculum*,[25] is excellent reading for all curriculum workers. The detailed accounts of participation by staff and community are simple and enlightening.

Two older volumes by Spears[26] are also of great value, *The Emerging High School Curriculum*, which is an account of some thirteen experimental programs, and *Experiences in Building a Curriculum*, which relates the development of the program in Evansville, Indiana.

A good collection of fragments illustrating many new departures in curriculum development in many places is included in *Toward a New Curriculum*,[27] the *1944 Yearbook* of the National Department of Supervision and Curriculum Development.

Still other valuable sources of material on curriculum programs are the bound volumes of the *Curriculum Journal*, and those of *Educational Leadership* with which the *Curriculum Journal* merged. The volume by Lawson listed in the bibliography is a mine of information. The *Third Yearbook* of the John Dewey Society (1939) and the *Tenth Yearbook*

[23] Kara Vaughn Jackson 'Curriculum for Better Living' *Educational Leadership* Vol 3 (October, 1945) pp 25-27.

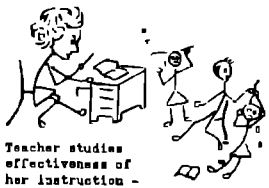
[24] *An Overview of the Saginaw Curriculum Program* (Saginaw, Mich. Saginaw City Schools, August 1938).

[25] Paul R. Pierce *Developing a High School Curriculum* (New York, American Book Company, 1942).

[26] Harold Spears, *The Emerging High School Curriculum* (New York, American Book Company, 1940) *Experiences in Building a Curriculum* (New York, The Macmillan Company, 1937).

[27] *Toward a New Curriculum, 1944 Yearbook* of the Department of Supervision and Curriculum Development (Washington, D.C. National Education Association, 1944).

HOW MAJOR INSTRUCTIONAL OR CURRICULUM PROBLEMS ARE HANDLED



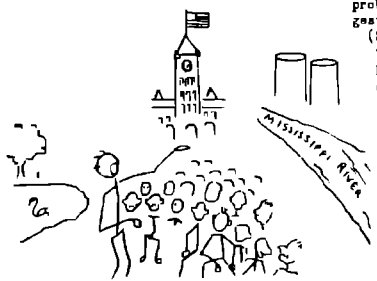
Teacher studies effectiveness of her instruction - notes points where she believes the school program could be improved

This teacher with other teachers comprising the Elementary School Teachers' Curriculum Committee (which meets several times a year with the Assistant Superintendent in Charge of Elementary Education) discusses problems in sub-committees and reports suggestions for changes.

(Secondary school teachers are invited to attend meetings to give their point of view on elementary and grammar grade problems)

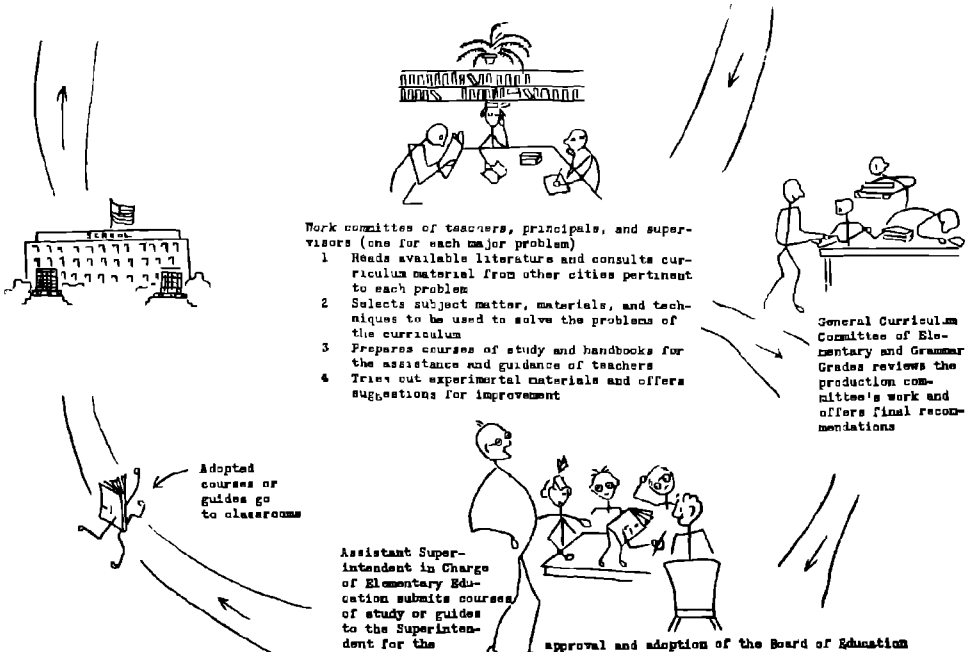
Principals and supervisors observe weaknesses in instructional program. Report findings to Assistant Superintendent in Charge of Elementary Education

Problems are presented to the General Curriculum Committee of the Elementary and Grammar Grades The problems which seem most real are listed on a "long-term program "



Many group meetings, forums, demonstration lessons, etc., with all teachers to acquaint them with new courses, guides, etc., and to give them an opportunity to offer even further suggestions, are held. Courses of study are guides to better teaching, not prescriptions to be followed in robot fashion

An advisory committee of teachers and principals (one for each major problem) meets with the Assistant Superintendent to discuss possible solutions, plans of work, etc.



From 'A Brief Presentation of the Plan for Curriculum Construction and Improvement' (Minneapolis, Minn., Department of Elementary Education Minneapolis Public Schools, March 1942) This chart has also been used in the Washington, D. C., program

(1937) of the Department of Supervisors and Directors of Instruction contain accounts of many early programs

Michigan state bulletin furnishes excellent guidance for local city programs We may conclude this discussion of city programs with the excellent summary of activities under way in the Michigan program [28]

The following are very brief statements of what some schools are doing in attempting to adapt their programs better to meet developments and emphases such as those treated in 'Curriculum Notes'

A *Within schools* steps such as these are being taken to discover problems in the school and community and to develop procedures and aids to deal with them

1 Faculty analyses of pressing school and community problems have been conducted in pre-school conferences or in other faculty planning periods

2 Student groups have conducted similar canvasses to identify and analyze school problems as seen by students

3 School community discussions and forums have been held to identify and analyze problems of concern to the community and to parents

4 Supplementary teaching materials have been obtained from the Michigan State Library extension divisions of colleges and universities state departments and other sources for critical analysis and use in classrooms Materials have been secured for specific purposes from library to classroom and between classrooms for appropriate periods of time

5 Teachers have worked out source units and other aids in summer workshops and pre-school conferences for use by teachers and students in dealing with problems identified

B *Between schools* and school systems

1 Regional afternoon and evening planning conferences on similar problems have been held

2 Teachers interested in similar areas of emphasis have met together to produce helpful teaching aids

3 Analyses of curricular areas which have been made locally have been reported for consideration by planning groups in other schools

4 Continuing working relationships have been established with institutions and agencies who provide consultant service on projects undertaken

C *Some activities* of local school faculties and regional planning groups

1 Planning procedures used in the staff have been extended to classrooms to involve students in maximum responsibility and participation with teachers

2 More flexibility in schedules have been sought by school faculties to secure greater continuity of contact for purposes of guidance and for continuity in learning experiences

3 Cumulative and case study data have been used in faculty group study as a means of aiding teachers to improve individual and group

[28] 'Current Curriculum Development Bulletin No 3048 Instructional Service Series (Lansing, Mich State Department of Public Instruction 1944), mimeographed pp 1 3

guidance and to *modify* the curriculum in terms of needs revealed through such guidance

Organizing for Curriculum Development

The experience of schools in carrying on procedures such as those noted above and the experiences of many other schools reveal certain common elements which indicate cues in setting up procedures for local faculty planning

A *Some general principles* which have been followed in organizing to promote curriculum development are to

1 Encourage the development and exercise of leadership from within the faculty

2 Discourage "ex-officio" membership on committees especially if specific production tasks are their responsibility since these require maximum participation by all members

3 Arrange grade level and inter-departmental faculty planning groups These have been found to be generally effective means of organizing to deal with many problems

4 Call on appropriate consultants for specific or continuous contribution to general planning groups and production groups

5 Plan regionally with other schools in setting up institute programs, district teacher meetings, and organization planning or working conferences

6 Arrange the school schedule to provide for a reasonable degree of faculty planning on school time including pre-school or post-school conferences

7 Develop a faculty discussion guide for use in planning faculty meetings and other professional planning meetings

8 Develop self-evaluation techniques to be used by teacher groups and by students with teachers See A Study of In-Service Education published by the North Central Association of Secondary Schools and Colleges 1944

9 Lay plans for faculty planning in pre-school inter-session or post-school conferences See Local Pre-School Conferences published by the Michigan Secondary Curriculum Study See also *Teacher Education in Service* by Cushman and Prall published by the American Council on Education

B *Organization* within the school might follow procedures such as the following

1 Develop a representative school curriculum planning committee or if the staff is small enough plan as a committee of the whole See Curriculum Notes No 1

2 If the representative planning committee method is used, establish a base which enables the faculty to suggest and to hear frequent reports from curriculum planning and production groups of teachers

3 Small groups of teachers interested in specific phases of general planning might undertake their further development rather than leave this responsibility to the general planning committee or to the total faculty

4 Provide for joint planning with the student council or other representative student groups

5 Provide for joint planning among teachers, students, community representatives, and parents

SECTION 3

THE PERSONNEL AND PROCEDURES INVOLVED IN PRODUCTION OF DOCUMENTS FURNISHED TO TEACHERS

Writing a course of study or modern guide for teachers is a specialized task requiring certain technical skills Individuals and committees undertake the work of selecting, editing and unifying contributions from all sources into bulletins which will facilitate the teacher's work in the classroom Teachers will participate in this work through serving on various councils and committees but cannot participate en masse as they do in curriculum making The far-flung efforts of all teachers to improve their own curriculums is one of the most important sources from which the course writers draw their materials The work of many committees organized in the curriculum improvement program will be utilized and in some instances the committees continued The contributions of many types of specialists in subject matter, in the psychology of learning in the growth and development of children and youth, in behavior problems, in community problems will be utilized by course writers The specialists and consultants will be both lay and professional

Differences in structure from traditional to modern courses affect the methods of production The nature and make-up of the published courses reflects the educational philosophy of those producing the courses Methods of production are affected therefore by the type of course desired The differences between older and more recent courses made clear in a previous chapter, cause certain differences in production

Organization for writing formal courses The earlier programs of course production usually developed extensive machinery The actual writing was usually done by a central Committee on Editing (or Unifying or Reviewing), working closely with a series of Production Committees The latter are organized around subjects, or areas of experience, depending on the type of course desired

A number of other committees set up anew or carried over from the curriculum program included one on Philosophy (or Viewpoint, or Principles), one on Aim, one on Definitions one on Scope and Sequence, and one on Evaluations Other specialized groups appear in some programs Earlier programs set these committees up and produced a Viewpoint, Aims, Scope and Sequence in executive session and by "taking thought" The results were handed out as the framework of the course Later programs see these committees serving to utilize, to review, to edit, and to write in acceptable form the results derived from the long detailed, specific studies and activities of the curriculum improvement program

Questions have been raised concerning separate committee organization Are separate committees in keeping with principles of integration, and of democratic cooperation? Can an organization of separate committees see the project whole? Would it not be better for all who work

upon the project to see it whole and to participate in all steps and procedures? This may necessitate course production by a central committee of the whole which may delegate certain specialized tasks to sub committees of its own members, who will report to the total group

Organization for writing modern guides Principles set forth in several places earlier hold here Organization will be loose and flexible, with easy reorganization Machinery will grow up from the curriculum program instead of the reverse Production committees will appear early emerging out of local study groups, conferences, workshops and from individual experimentation These committees will not at first be controlled by a central organization and frame of reference but will produce these things as needed Statements of philosophy and aim definitions and the like will be produced by the original groups as needed Committees are less likely to be on reading, writing, arithmetic, social studies spelling, more likely to be on source units of many types, on characteristics of children at given levels on diagnostic and remedial procedures, guidance, and so forth Eventually a series of large source units or bodies of resource material will be unified without strictly limited scope and sequence Teachers will use these as aids in building curriculums

The 'installation' of courses of study Early programs which produced courses through central organization or with a minimum of participation had the problem of "installing" courses, that is, securing use throughout the system The typical procedure was to distribute the courses to every one together with a bulletin governing use of the course Courses were usually prescriptive, to be 'followed' were to be used immediately and in so far as possible, similarly by all teachers with all groups of persons Provision for variation in use was made in many courses

Current knowledge about education and about learning denies the validity of these procedures Courses should not be prescriptive, but provide for many options in use suitable to the diverse conditions within any system Use cannot be immediate but will be based on further group study and individual experimentation, aided by supervisory assistance Courses are not to be "followed," but used as guides and aids to teacher ingenuity in adapting to given situations The modern curriculum program avoids the problem of installation as formally interpreted The nature of a curriculum program as made clear in this and other chapters explains this Materials for teacher use emerge out of the efforts to improve instruction which are going on in all sorts of small units individual classrooms, or schools Materials are produced in answer to needs both individual and social, immediate and remote General needs emerge and with them representative councils or committees to produce materials of general application The great volume of materials from bulletins on limited specific problems to series of extensive resource units or volumes will be available for use by any interested teacher or faculty Leadership is the key to use Valuable materials will be widely used With leadership absent

materials will not get wide use, even under requirement from the central office To summarize installation under regulation is not likely to be effective in any real sense, the problem of installation disappears in a modern program where participation and good leadership are widespread

SPECIAL NOTE

Guidance for conservative systems with less well-trained staff The programs of curriculum development and production of documents described in this chapter and in Chapter IX represent advanced practices in the hands of well trained personnel, prepared for modern procedures The question is asked about approaches in less favorable situations Illustrations were requested by students as this volume was being prepared Space simply prohibits lengthy illustrations of less advanced practices Aid to systems which are feeling their way is nevertheless important

First we may say that modifications of the most advanced practices may be attempted by any system *Second*, the initiation of programs in more conservative systems will likely be by the leadership rather than by derivation from on going activities by any staff member *Third*, corollary to the second, participation will be far less widespread *Fourth*, in-service programs are likely to be imposed rather than arising in response to demand The study program will be more limited and progress slower than in advanced situations Emphasis at first is likely to be on formal courses and study of books, moving slowly toward workshops, committee work and experimental try out *Fifth*, printed materials will likely be prepared by small representative groups with programs of installation prominent *Sixth*, the production of documents will likely be more prominent than the development of curriculums Progress can be made toward better procedures

Accounts of conservative programs are less frequent in the periodical literature Bulletins for such situations can be secured and studied Exercise No 9 at the close of the chapter enables student groups to summarize materials here

Discussion Questions for General Introduction

1 The general questions on policy and general procedure in Appendix B will be found stimulating to class discussion One or two periods may be used

2 A large number of valuable discussion questions is to be found after each chapter in the curriculum texts by Norton and Norton, Harris and Gwynn

Individual and Group Reports

1 Critically evaluate the general methods used in your own system to initiate a curriculum improvement program Include comment upon the relation

of the program to course production Include comment upon the administrative machinery utilized

2 Report for class analysis your own personal experience in participating in the program

3 Students without first hand experience may report critically upon any state or city program as set forth in bulletins or in the periodical literature

4 Plan an approach to a curriculum improvement program for your system based upon the situation as it now is

5 Make a list of beliefs and practices held by elementary and secondary teachers which would have to change if these teachers sincerely accepted the newer curriculum practices If possible interview several teachers otherwise insert from past observation and belief (It is assumed of course that a good curriculum program would stimulate teacher growth toward these changes) This is a far reaching question and an organized answer is important

6 A series of careful, critical summaries should be made of the literature on the strengths and weaknesses of the subject curriculum the correlated curriculum the core curriculum (various interpretations), the fusion program, the experience curriculum The relation of experimess of teaching to the stimulation of integrative experience and to the preservation of personal integration should be critically considered

7 List the principles and practices useful in converting conservative teachers to modern curriculum practices (This question may be handled in connection with Chapter XII The Facilitation of Teacher Growth' if desired)

8 Further questions and discussion may ensue at this point concerning the techniques of group discussion and cooperation as presented originally in Chapters II and III

9 An individual or small committee may summarize the characteristics of extremely limited or of conservative curriculum programs as found in the literature in bulletins from school systems, or in the personal experience of class members

Suggested Readings

Alexander William A *State Leadership in Improving Instruction* (New York, Bureau of Publications, Teachers College, Columbia University 1940)

A good brief summary of three types of leadership exercised by state departments based on three state programs

Burton, William H, *Introduction to Education* (New York D Appleton Century Company, Inc 1934)

Brief summary of background points in Chapters 9 to 17 17 Probably better for use with Appendix A

Cook Katherine M 'Supervision of Instruction as a Function of State Departments of Education Bulletin No 6, Monograph No 7 (Washington D C, United States Office of Education, 1940)

Giles, H H McCutchen, S P and Zechiel A N, *Exploring the Curriculum* (New York, Harper & Brothers, 1942)

This is the second volume of the series presenting results of the Eight Year Study Excellent

Rorer, John A, *Principles of Democratic Supervision* (New York Bureau of Publications Teachers College Columbia University 1942)

SAYLOR, J Galen, *Factors Associated with Participation of Cooperative Programs of Curriculum Development* (New York, Bureau of Publications, Teachers College, Columbia University, 1941)

One of the most valuable references available

VINCENT W S, *Emerging Patterns in Public School Practice* Teachers College Contributions to Education, No 910 (New York, Bureau of Publications, Teachers College, Columbia University, 1945)

A valuable summary and analysis

What Schools Can Do for Patterns of Educational Practice (New York, Metropolitan School Study Council, 1945)

A valuable collection

NOTE The references given at the close of Chapter IX are also to be used here

Accounts of city and state programs are widely available in bulletins and periodical publications These statements are a valuable source of information and guidance City programs are too numerous to list but can be found through watching the listings from time to time of the curriculums published during a given period

Prominent state programs reported in a series of bulletins include among others Arkansas Alabama, Florida, Georgia, Kansas, Louisiana, Michigan, Mississippi, North Carolina, Oklahoma South Dakota Tennessee Texas, and Virginia

XIV

Improving the Use of Materials of Instruction and the Socio-Physical Environment

The relation of materials and educational objectives Many problems are presented to supervisors and teachers by the rapidly accelerating rate at which instructional materials are developing and the growing belief in the necessity of closely relating the work of the school to life outside the school Choices of materials must be made, and rigorous selection for use is required The selection must be made in terms of factors which condition effective and fruitful learning The emphasis that is being placed by current educational thought on preparing children for life in a democratic society demands a different conception of the functions of instructional materials from that held when the primary objective of the school was the transmission of the social heritage and the development of basic intellectual skills

This broadening conception of the function of the school has been well expressed in the following statement [1]

1 An understanding of the nature of the emerging social order with its emphasis upon new group relationships and new leisure becomes the first criterion in the selection and use of materials

2 This new sharing in the social consciousness is interpreted to mean that form of thinking and doing which is a combination of
   a *Independent action* based upon the recognition of the efforts of others but not interfering with such efforts
   b *Active cooperation* and persistent lending of energy to the further differentiation and integration of social forces synonymous with progress

3 The changing social and economic order suggests a program of education directed not merely toward the intellectual acquisition of 'subject-matter" but toward those controls which maintain strength when new situations arise—the development of ability for independent thinking and resourcefulness in meeting problems which are new and only a few of which can be foreseen

4 Such power in resourcefulness and independent thinking is not given—it comes into being and grows only through exercise

[1] *Materials of Instruction Eighth Yearbook* of the Department of Supervisors and Directors of Instruction (Washington, D C , National Education Association 1935) pp 132 133

5 In developing such power, it is the peculiar privilege of the teacher to assist in selecting 'the influences which shall affect the learner and to assist him in properly responding to these influences' *

* John Dewey *My Pedagogic Creed* Originally printed in 1897 by E L Kellogg & Co New York and Chicago Reprinted in 1910 by A Flanagan Co, Chicago Reprinted in 1929 as a pamphlet by the Progressive Education Association Appears also in the *Journal of the National Education Association* Vol 18 (December, 1929) pp 291 295

This conception stresses the necessity of seeking to develop in pupils the growth of creative capacity, the ability to adjust to the demands of the situation, power in self-direction, and the enjoyment of experiences by the help of what can be drawn from the accumulated wisdom of the human race Such a program requires an environment of concrete problem-solving, laboratory materials, an environment which stimulates investigation and other forms of self expressive activity These materials may be located in the school, or they may be found in the social life outside the school A sure way to make the learning activities directed by the school vital and meaningful is to draw on the community and its activities for illustrative materials, or to contact these agencies directly through excursions and visitation

Effective instruction also requires the provision of scientifically organized materials which will insure the mastery of the essential tools of learning with a minimum of difficulty It also requires a wide variety of materials which are adapted to the differences in interests and aptitude of the children Instructional materials must be selected because they will contribute effectively to the achievement of worthy objectives and purposes

SECTION 1

IMPROVING THE USE OF MATERIALS OF INSTRUCTION

Improving the selection of materials The selection of instructional materials should take place as the result of cooperative action by all who are affected by them, in some cases including even the pupils and members of the community who are competent to express judgments The selection should be made on the basis of criteria accepted by the group These standards of selection may most suitably be set up by a specialist in the field, by the supervisor, or by the group responsible for the selection of the materials If teachers under the leadership of the supervisor set up the criteria, and if all issues involved are given adequate consideration the professional stimulation is considerable The selection of materials should be made, in so far as this is feasible, in a scientific manner, that is on the basis of facts derived from systematic analysis of the items, experimental trial in the classroom, and the recommendation of experts An excellent illustration of a series of such criteria was published in the yearbook *Materials of Instruction* The list of criteria together with illustrative comments on some of them follows [2]

[2] *Materials of Instruction op cit*, pp 134 139

1 The selection of instructional materials in terms of their bearing upon experiences or problems being considered by the group

The agreed upon goals in terms of the problems or situation at hand become the focal point of selection It means materials

(*a*) selected to give fuller meaning to daily experiences, and

(*b*) selected because it contributes naturally to the development of the experience or situation without imposing that which is unrelated

2 The selection of material to lead to an understanding of fundamental concepts generalizations and principles—controls based upon facts and experiences which give power to meet new situations

3 Selection of materials within the range of understanding of the group—selection from real situations on the level of the child's understanding and in accord with pupil interests and needs

4 The selection and use of materials to provide for individual differences in ability, interest, and need—providing for individual growth within group activity

5 The selection and use of materials of instruction to help children in turn to grow in self direction and in choice and evaluation of materials

This criterion rests upon the belief that the teacher's place in the educative process is that of a member of the group who on the basis of larger experience is a recognized leader, whose function it is (*a*) to assist in selecting the influences which shall affect the learner and (*b*) to assist him in properly responding to these influences—responding in a way to develop independent power on the part of the pupil in the selection, evaluation and judgment of materials

6 The selection of materials noting basic purposes for which the material has been developed and testing its validity in the light of known truths and facts

Frequently the selection and use of such material means testing the scientific basis of the data presented—a check on authenticity In other cases it means sensitivity to varied points of view and the continued search for materials to make the several viewpoints available In still other situations it is the recognition of propaganda as propaganda—a distinguishing of the sensational, the partisan that based only upon an appeal to the emotions

7 Differentiation in the selection and organization of materials between those having permanent values and those concerned with temporary or passing interests

8 Selection should provide for balance and variety in types of material

This standard is significant by way of (*a*) acquainting pupils with a wide variety of sources, (*b*) recognizing basic factors conditioning interest (*c*) stimulating new interests through different media (*d*) allowing for individual differences (*e*) providing stimuli to the learners own creative powers, and (*f*) providing for the all around development of the individual

9 Selection of materials having appropriate mechanical make up Other things being equal those materials are to be preferred that rank high as to

a Clearness and conciseness (vocabulary, sentence structure, style) and interest value

b Attractiveness, usableness—suitability of type, form, size, margins, quality and finish of paper spacings, illustrations etc

c Mechanical durability and suitability

d Proper methods of emphasizing important phases of work (i e , use of italics illustrations for heightening interest, etc)

e Convenience—completeness of table of contents and index, definite page arrangement, etc usability under existing conditions

The use of varieties of materials Different kinds of materials serve different purposes One kind is used for developing basic skills such as writing, reading, number, and language usage This consists of workbooks and other kinds of practice materials Another kind is used essentially for the purpose of giving the pupils first hand experiences through direct contacts with concrete objects, such as playground equipment, laboratory apparatus, tools, and similar materials A third kind is used in giving pupils indirect vicarious experiences Hollingworth has described a series of levels of experience of "varying degrees of remoteness from reality" as follows [3]

1 Seeing the actual events take place or handling concrete objects and materials
2 Seeing the events 'acted out' as in drama or pantomime by people who 'represent' the actual characters of situations
3 Motion picture portrayal of the events, or of actions intended to represent them
4 Photographs still pictures of significant characters and objects
5 Maps, diagrams blue prints, and similar graphic representations of objects facts and relations
6 Verbal account and description, heard or read in the mother tongue, using the vocabulary of daily life
7 Description through the use of technical symbols and terminology indices, coefficients foreign speech or similar sets of special and recondite signs

Hollingworth points out that

> If the group to whom material is presented is very heterogeneous the simpler methods will be the more likely to carry the message to all The younger the less sophisticated and less educated the audience also the more likely will the simpler methods be to promote equal and general understanding

The close relation between learning and the meaningfulness of learning materials is well expressed in the following statement by Ryans [4]

> The meaningfulness of learning materials is dependent upon
> 1 A broad background of related experience of facts and principles about the situation course or subject field with respect to which learning is sought
> 2 the awareness of the relationships existing between the old and the

[3] H L Hollingworth *Educational Psychology* (New York D Appleton Century Company Inc 1933) pp 209 210

See also Nelson L Bossing *Teaching in Secondary Schools* (Boston Houghton Mifflin Company 1935 revised 1942) Chapters 11 13 and William H Burton, *The Guidance of Learning Activities* (New York, D Appleton Century Company, Inc, 1944) Chapter 3 particularly but also Chapters 2 and 4

[4] David C Ryans in *The Psychology of Learning Forty First Yearbook* of the National Society for the Study of Education (Bloomington, Ill Public School Publishing Co 1942) Part II pp 308 309

new, between past experience and present experience New learning should be related to situations in which the learner already possesses information and interest This may be accomplished either directly or indirectly

3 the organization of the material to be learned The logical relationships of the situations must be used to advantage and

4 the awareness of relationship between the learning situation and the possible future applications of the learning The purposefulness of learning is directly related to its meaning

Adjusting difficulty of materials to pupil ability In a discussion of factors related to the difficulty of reading materials Leary points out the necessity of considering a variety of elements before recommending a book to a particular student because of the desirability of adapting the work to the ability and interest of the individual The list of items to be considered according to Leary is as follows

1 Observe the format noting whether the material is attractive in size and appearance approachable legible etc

2 Consider the type of subject matter and the literary form deciding whether they are appropriate for the student's purpose interest and ability

3 Evaluate the content of the book for the quality of ideas presented

4 Judge the degree of completeness of the ideas and facts presented estimating whether they are too compressed for the students to interpret readily

5 Observe the author's choice of words

6 Examine the author's arrangement of words in sentences

7 Predict the difficulty of the book by sampling the book analyzing the passages for significant elements and applying a formula of prediction

8 Synthesize the facts pertaining to the difficulty of the book under consideration and relate them to what is known about the reader in order to determine whether the book is suited to his interests abilities and purposes

[The application of this series of steps can be done by the teacher either in a systematic way or informally by a fairly detailed analysis of the book by inspection When it is planned to make use of a basic body of materials for instructional purposes it is a good plan to establish with considerable accuracy the relative difficulty of each item included as a basis of effective direction of the learning activities of each item included as a basis of effective direction of the learning activities of pupils This is essential if adequate provision is to be made for individual differences]

The specific procedures that may be used to determine the difficulty of various kinds of materials have been discussed in Chapter X, and will not be reviewed at this point Standards for the allotment of materials to classes should recognize the need for materials of varying levels of difficulty so that proper adjustments to the variations in the abilities of the pupils can be made

Bernice Leary in *Reading in General Education*, A Report of the Committee on Reading in General Education W S Gray, editor (Washington, D C American Council on Education, 1940), pp 301 302

Improving library facilities The educational value of printed matter is widely recognized In most communities special provisions have been made to ensure the accessibility of wholesome reading materials through efficient library service It is necessary to supply strong incentives toward the 'better" publications that are written sincerely, present truth without bias, depict life by emotionalizing the truths of human experience, and distinguish the heroic from the normal The library seeks to condition youth against the "worse" publications which are more numerous and more easily available than the 'better " The most accessible publications are those read most widely Even when good books are available and more accessible than the "worse,' the better will be neglected unless the right incentives are applied Readers must be led to prefer them by sympathetic guidance, usually on an individual basis

The school library represents the most direct step that has been taken to improve and broaden reading interests The school library can serve many purposes It should be a place to which children can go for study relaxation and enjoyment It can also serve as a place for group activities, pupil teacher conferences, and reference reading The pupils should be given much freedom in the use of the library as a source of inspiration a stimulation of creative activities, and a place for exhibiting the products of their activities When supplemented by reading alcoves or corners in all classrooms it is possible to integrate the services of the library with the on going learning activity Here can be made available for the pupils the materials needed in the activity that is under way

The following types of materials should be available in the well equipped school library

a Supplementary books with authentic material related to curriculum areas
b Different kinds of reference books dictionaries encyclopedias
c Well selected literary materials for enrichment purposes and for recreational reading
d One or more newspapers local or national
e Selected magazines for children and for older pupils
f Sets of reading materials organized by subject or topic arranged for class use
g Books loaned by city county regional, or state library if available
h Pamphlets bulletins dealing with vocations and occupations
i Pictorial aids such as pictures, films, slides, maps etc
j Bulletin board for posting clippings, reviews, advertisements etc to stimulate interest in reading
k A small space for museum exhibits and for exhibits of pupils productions

Improving the accessibility of materials Teachers and pupils should grow in their ability to find or devise materials that are needed in the course of their activities When great varieties of materials are available, some of the value that comes from locating needed supplies or using ingenuity in devising materials is lost Some of the equipment needed for instruction such as textbooks maps, and reference books, is of a

more or less permanent nature whereas other supplies such as clippings pictures, and periodicals are soon out of date and need not be preserved

The establishment of a materials bureau offers many advantages, since it provides centralized facilities for storing and filing materials to be preserved It may take the form of a central bureau for all schools in a system under the direction of some competent person Any teacher may requisition materials from this bureau or visit the bureau to select the materials desired from among those available In many schools materials bureaus for the single school have been established, sometimes as part of the school library and under the charge of the school librarian sometimes in a special room set aside for the collection The resources of this bureau are available to all teachers and pupils Sometimes materials bureaus are developed for single classrooms where adequate storage and filing space is available This is especially necessary for classrooms designed for social science, science, and industrial arts The pupils should be taught to assist in collecting and preserving necessary materials and in keeping them up to date They can also participate in the activities involved in mounting filing, cataloging, indexing and lending the materials In the course of time such a bureau can assemble an excellent variety of instructional aids

The sources of materials in the community should also be explored systematically References to libraries, museums, art galleries, collections of various kinds, exhibits, and other sources should be compiled by the staff, and the lists should be made available with notes as to what each source can provide Names of places of historic interest, the names of firms, stores business houses, farms, etc willing to give pupils access to them for purposes of study or other kinds of contacts should also be compiled for the information of all

To make teachers familiar with sources of new materials, several steps can be taken The supervisor or a committee of teachers interested in the problem of supplies can make a systematic scrutiny of publishers' catalogs and advertising matter Exhibits of materials at professional meetings should be examined to locate new kinds of instructional materials Reports of new types of supplies and equipment often included in books articles, and new courses of study should also be analyzed Observations at experimental centers and elsewhere are another valuable source of information Special steps should be taken to bring to the attention of the staff some new use that is being made of some older type of material This may be done by means of special bulletins or orally at staff meetings In general the supervisor should enlist the help of the entire staff and pupils to locate or devise the necessary kinds of instructional aids and take steps to keep them informed as to the best sources

Materials to be secured free or at small cost At the present time an increasing amount of instructional materials of various kinds is being made available for the schools This material is most useful in sup-

plementing the textbook The following summary shows the types that can be secured free or at small cost by any school [6]

1 *Bulletins, pamphlets, catalogs* Many book catalogs give descriptions of books, information about authors and illustrators, and illustrations that will be interesting and stimulating for children's use Such catalogs often give an acquaintance with books and writers which may not be acquired in any other way Children enjoy looking over book catalogs, selecting books for Christmas gifts or for the library order Seed, picture, and toy catalogs may be used in the same way

Travel bulletins add interest to work in geography and are valuable in developing units of work having to do with industries with different sections of the United States, and with foreign countries

Many bulletins published by departments of state and national government and by state universities will be found helpful in classroom work

It is undesirable to have every pupil write for the same material or for each succeeding class to collect materials that can be preserved from year to year as a part of the permanent school collection of materials Pupils may write for some of the material as it is needed but much of the information will have to be located and often secured before the group begins the unit of work In order to prevent too much loss of time Requests for materials should be written on school stationery and should be approved by the teacher Children should write for definite information or material not make a general request for information or bulletins

2 *Magazines, papers* (state, local, Sunday, foreign) These offer rich material for instructional use Feature articles accounts of special exhibits reviews of books plays and movies, radio programs and the like may be clipped and used for the bulletin board and later for the files as a contribution to the material under some special unit or topic used in the curriculum of the school

3 *Posters of railroad and travel bureaus maps and charts* These furnish graphic and often colorful illustrative materials Maps are being used in many ways to show places of historic interest, sports and recreation centers flowers and herbs grown in different localities, weather conditions topographic survey Graphs may be obtained showing production and distribution of products market analyses trends in economic life These are valuable as source materials presenting the information in a manner which is not possible in the textbook

4 *Prints and pictures* Copies of famous pictures colorful prints from various foreign countries, pictures from magazines, the picture supplement of the Sunday papers, advertisements Kodak pictures postcard views of points of historic and geographic interest, of costumes in different lands, and of fairy tales and nursery rhymes have a very real place among instructional materials

5 *Tapestries and wall hangings* Prints, pictorial cretonnes, which may be bought by the yard hemmed and mounted, add a note of color to the classroom and furnish illustrative material for transportation and other units of work

6 *Exhibits* Silk, rubber and other manufactured products collections of minerals, stamps, pictures, books and the like, add vividness and reality to the instructional program

[6] Mildred English and Florence Stratemeyer Selection and Organization of Materials of Instruction in *Materials of Instruction, op cit*, Ch 7 pp 130 131

7 *Properties and costumes* Such items used in plays and programs may go into the properties box of the school, the materials to be used as need arises in school programs and entertainments

8 *Programs* Radio theater, lecture exhibit museum, garden club, book club programs offer suggestions

9 *Reviews* of plays, movies, and books, furnish current information

10 *Biographical sketches* Information about the lives of authors, writers and actors may be obtained from such material

11 *Mimeographed units of work and teacher and pupil made helps* Such materials meet immediate needs

12 *Annotated bibliographies of source material and of available illustrative materials* These are materials which should be preserved for reference

SOURCES OF FREE AND INEXPENSIVE MATERIAL

1 *Commercially published bulletins*

Free and Inexpensive Educational Materials Including Sources of Visual Aids Special Report No 17 The Quarrie Reference Library Chicago Ill 35 East Wacker Drive $5 00 Constantly revised

Sources of Free and Inexpensive Teaching Aids Bruce Miller Box 222 Ontario, California $5 00 Constantly supplemented

2 *University publications*

Free and Inexpensive Materials This is an annotated bibliography of bibliographies of courses of pamphlets and other teaching aids Hugh B Wood Cooperative Store University of Oregon Eugene Oregon *Curriculum Bulletin* No 4 Sept 1 1940 25c

Enrichment Materials for Teachers Robert Dikeman *Service Bulletin* No 7 (Evanston, Ill Northwestern University May 1941)

Materials for the Classroom' (Gainesville Fla University of Florida Curriculum Laboratory)

Free and Inexpensive Learning Materials Field Study No 9 (Nashville Tenn , George Peabody College for Teachers)

List of Free Materials (Collegeboro, Ga Georgia Teachers College)

3 *Government bulletins* (Sampling only Others are available from a number of government departments)

'New Government Aids for Teachers Appears in *School Life* from September 1937 to June, 1940 but is available in pamphlet form as a reprint United States Office of Education

One Dollar or Less Inexpensive Books for School Libraries J A Lathrop Pamphlet, No 88 (Washington, D C United States Office of Education 1940) 5c

Children's Books for fifty cents or less Dorothy Caldwell Cider (Washington D C Association for Childhood Education 1943) 25c

Free posters on animals and animal husbandry (Washington D C , Bureau of Animal Husbandry United States Department of Agriculture)

Radio Programs for School Listening (Washington D C United States Office of Education, Department of Interior)

Improvement of textbooks The textbook is probably the most important educational tool in this country It is used almost universally In recent years, however, many studies have been made of the quality and efficiency of textbooks which have sometimes revealed serious weaknesses in them The use of objective score cards in evaluating textbooks has

contributed powerfully to their improvement The application of quantitative techniques to the analysis of their content has led to the setting up of definite specifications of construction In many instances textbooks are being tried out experimentally before they are published for general use There has been a growing tendency to select their contents on the basis of studies of children's interests Revisions are frequently made The tendency to enrich and socialize instruction through the use of a wide variety of materials has in many schools reduced the dominance of the textbook as a controlling factor in teaching

Judd has made some suggestive proposals as to the ways in which textbooks can be made more useful for teaching He emphasizes the library method of teaching which involves the use by pupils of numerous books rather than a single textbook which is the same for all pupils This is consistent with the current trend of educational practices in the leading schools of this country The more cogent points in Judd's discussion follow [7]

I think publishers should stop aiming at large adoptions of a single book in a given field and should concentrate on the effort to cultivate among boards of education and school people in general the idea that children have a right to many books in each field I think that publishers should deliberately seek several good books in each field and should publish them with the idea clearly in mind that every school should be supplied with more than a single standard textbook in any one field

In my judgment a high degree of flexibility ought to be introduced into school practice There are books in history which are excellent in their treatment of the evolution of governmental institutions There are other books which have better discussions of industries and their growth The difficulty with a great many books is that they are leveled down to mediocrity because each publisher feels that each book which he publishes must cover all phases of the subject with which it deals rather than limit itself to that phase which the author is most competent to treat I am trying to suggest that publishers offer to the schools small units of reading matter rather than general compendiums

Revision is of course, necessary whenever new ideas appear The new ideas usually supplement rather than destroy older ideas Why not put the additions to a subject in the form of small units and thus keep the school library up to date rather than continue the pernicious and wasteful habit of overhauling a whole collection of topics every five years for the purpose of fooling people with the idea that one is publishing a new book?

There is another advantage which would be gained I believe if all instructional materials used in schools were so transformed as to lay emphasis on small units rather than complete textbooks of the conventional type At present the ordinary teacher does not have the courage to contribute to the teaching materials of the school beyond preparing lessons for his or her own class The preparation of a complete textbook is a formidable task It is undertaken only under very special conditions by a teacher who has had long experience or is stimulated by unusual circumstances A great many excellent formulations of individual lessons are entirely lost because the habit of putting individual lessons into permanent form has never been cultivated in the American educational

[7] C H Judd The Significance for Textbook Making of the Newer Concepts in Education *Elementary School Journal* Vol 36 (April 1936) pp 575 582

system There is a consequent deplorable lack of initiative among ordinary teachers By bringing out this fact in the present connection I do not mean to imply that publishers alone are responsible for the situation I am sure that the whole educational system must assume the responsibility for stifling the initiative of teachers My plea is that the publishers contribute to a major reform by devising ways of arousing competent teachers to the opportunity and duty of preparing comparatively short lessons which require investigation but do not require the ambitious series of investigations necessary for the preparation of a pretentious book

It is apparent from the number of statements appearing in educational literature that publishers are conscious of problems in the preparation and publication of textbooks The following list of ten problems suggested by Whipple is indicative of the kinds of questions that are arising for needed investigation and research [8]

1 Is the textbook an unnecessary pedagogical adjunct?
2 Is it advantageous to replace a single set of one textbook with several sets of different textbooks?
3 What is the extent and the nature of the demand for master copies of material to be reproduced by duplicating devices?
4 What are the merits—quality of material and cost per word being considered—of the very cheap ten-cent-store type of books as compared with standard textbooks?
5 Why are school administrators averse to buying elementary school books that deviate from the format of the typical textbook?
6 What is the validity if any, of the increasing refusal of the schools to buy textbooks bearing a copyright date more than a few years old?
7 In what specific respects are textbooks too difficult for the learner? If vocabulary and style are primary considerations how are the difficulties these present best determined and best obviated?
8 Can the tentative conclusions reached in the investigations of certain Boston publishers regarding optimal sizes of type and leading in grades 1 and 2 be confirmed in higher grades?
9 What is the pedagogical value of illustrations especially of colored illustrations, in school textbooks?
10 What do the schools really want for indexes in textbooks?

Free textbooks The movement for free textbooks has made rapid strides in this country When the schools supply the books, greater flexibility of equipment is possible, and all pupils are not required to use the same textbook There are, however, many places in which pupils still must purchase their own textbooks and supplies, because of an apparent belief that costs are thereby reduced It usually follows that such systems also spend relatively little for other kinds of supplies The points in favor of and against free textbooks have been well summarized by Hall Quest as follows [9]

[8] G M Whipple, Needed Investigations in the Field of the Textbook *Elementary School Journal* Vol 35 (April 1935) pp 575 582

[9] Alfred Hall Quest *The Textbook* (New York The Macmillan Company 1918) pp 51 54

The following arguments in favor of free textbooks have been presented from time to time

1 The cost is placed on the district rather than on the individual, there is a lower per capita cost
2 Economy is made possible through large orders (The Russell Sage Foundation *Bulletin* 124 says about 20 per cent is saved in this way)
3 Books may be changed with little inconvenience whenever different texts are found necessary
4 Uniformity of textbooks in each school administrative district is secured This would reduce much of the confusion in the transfer of pupils from school to school Many superintendents find this to be true
5 Poor children may attend school as well equipped in this respect as the more well to do children
6 A larger enrolment is possible because the cost to the parent is less (The Massachusetts law on free texts resulted in a 10 per cent increase in high school enrolment)
7 Everybody has a book and the school work can start promptly the first day
8 Additional or supplementary texts may be provided for the enrichment of the teacher's point of view, scope of illustrations and applications Such additional texts are available also for the wider study of a subject by the pupils

The arguments against free textbooks many of them invalid are

1 Parents and pupils grow to feel that they are wholly dependent on the state whereas they should assume some of the responsibilities of education
2 Increased school taxes would be necessary if free texts were provided
3 Children should not be required to use books soiled by others
4 Free textbooks are likely to be carriers of disease
5 If the parent purchases textbooks home libraries may be built up and the pupil will have a permanent collection of reference books
6 Free textbooks are not cared for as well as those owned by the pupils
7 Free texts foster a lack of self respect, because there is no sense of possession
8 The free textbook cannot be marked and reorganized for study purposes as conveniently as one owned by the pupil
9 As it is difficult to recover books from pupils who drop out of school and move away, the cost of equipment and the loss from waste is increased

Improving the use of workbooks and remedial materials In Chapter X criteria for the selection of workbooks were discussed, and their value for purposes of instruction was pointed out Numerous investigations have shown that when well organized functional practice materials are used correctly, the gains that result in terms of such outcomes as growth in ability, grasp of subject matter skill in the use of the tools of learning, interest in the subject, and breadth of understanding are definitely greater than when traditional procedures are followed

It is unfortunately true that workbooks and similar prepared practice materials are often misused Some teachers apparently believe that adjustment of instruction and materials to individual differences is not desirable All pupils are assigned the same practice exercises in workbooks

despite the fact that their weaknesses and the causes of the weaknesses may differ To have all pupils, irrespective of their difficulties, perform the same exercises is a "shot gun" approach similar to that used by the ancient medicine man The effective use of workbooks and remedial practice materials requires the study by the teacher of the individual pupil to establish his needs and the direction instruction should take to eliminate the individual pupil's particular weakness or weaknesses Pupils having similar deficiencies can of course be taught as a group

Some teachers apparently regard a workbook as a panacea They never deviate from the order of the workbook and never go beyond it Unfortunately, a workbook does not include exercises that will remove the causes of difficulty, for example a pupil who is not able to work out independently the new words that appear in practice exercises in reading should not be given a reading assignment in a workbook until necessary help has been given in phonetic analysis Similarly if he has a visual defect, *this should be corrected before intensive practice is done* Workbooks also are often not very interesting to the pupils The teacher must therefore take steps to develop a desire on the part of the pupil to do the practice exercises in the workbook The successful use of workbooks and *prepared practice exercises requires that the teacher supplement the text* with a variety of experiences, materials, exercises, and methods adapted to the needs of the individual

Some teachers apparently believe that assigning a large amount of drill *is a guarantee that effective learning will take place The fact is that* unguided drill actually strengthens inefficient habits and skills, because the pupil repeats the same errors and faulty procedures again and again with *no improvement in performance* For example it is practically *certain that a pupil who uses an incorrect* roundabout procedure in working examples in subtraction will not hit upon the correct method of work independently Unless his fault is discovered by careful diagnosis by the teacher and the correct procedure is taught before practice is assigned *the drill work will be useless and may actually be harmful*

The kind of motivation used is also an important consideration in the use of workbooks Some workbooks provide a means of keeping a graphic record of performance to show the progress made But because of the unstandardized and variable nature of the materials and tests on which the scores are sometimes based, they are not directly comparable and hence the ratings derived from them are not dependable or reliable Even when such extrinsic methods of motivation as progress graphs are used, the teacher should stress the value and importance as well as the necessity of the remedial measures and the practice that the pupil is expected to do Because of their intrinsic nature the satisfaction and enjoyment to be derived from improved skill are much more valuable sources of motivation than progress graphs If the children can see the need for the use of practice exercises in workbooks that emerge in the on going activity of

the class, it is obvious that the practice will more likely be purposeful and meaningful than if it is assigned arbitrarily without any plan for showing the children why the practice has been assigned or is necessary

Workbooks and remedial materials are likely to be most helpful if they meet the following standards

1. They should be organized in such a way that the purpose of the material is evident to the pupil
2. The activities involved should be related to socially desirable objectives and should be vital and meaningful to the children
3. These materials should make definite and effective provision for differences in the needs, ability, and rate of learning of the pupils
4. They should include reliable devices by means of which the teacher and the pupil can locate strengths and weaknesses in particular areas. The more specific the diagnosis, the more likely it is that underlying causes of deficiency can be identified
5. They should provide a wide variety of developmental and remedial materials of demonstrated value which may be used in the light of the diagnostic analysis. The keying of instructional materials and remedial practice to diagnostic tests facilitates a self-directed attack by the pupil on his particular difficulties and assists the teacher to adapt the work to the needs of each individual

Principles underlying the preparation of individualized instruction materials. It is undoubtedly true that no two pupils are actually ready for a particular phase of work at the same time, especially in the learning of techniques and skills. It is therefore necessary to provide materials which enable each child to work independently of the others in the class. In Winnetka this is accomplished by the following plan [10]

1. Instructional materials in the form of workbooks or textbooks are written in such clear, simple, concrete terms that they are practically self-instructive. This makes it possible for each pupil to proceed at his own rate with a minimum of help from the teacher. The teacher is always ready to give assistance on difficult points.
2. Each child works on the unit for which he is ready and when that is completed passes on to the next unit, regardless of the progress made by other members of the group. A definite effort is made to limit the scope of the work to what is called the common essentials, including the skills, knowledges, and concepts necessary to maintain social relationships. The emphasis is placed on systematic learning in accordance with the child's development.
3. Maximum effort is stimulated through short periods of intensive work. Long periods of practice are avoided.
4. The pupils score their work on practice lessons but are carefully checked by diagnostic tests administered by the teacher when a unit of work has been completed. Any further instruction apparently needed is given at once by the teacher.
5. When the pupil at any time during the year has completed the requirements for some area for a given grade he may proceed to the work of the next grade at once without changing rooms.

[10] Adapted from the discussion in C. W. Washburne, *Adjusting the School to the Child* (Yonkers-on-Hudson, N.Y., World Book Company, 1932).

6 If the pupil has not completed the work of a given grade in June, he begins in September at the point where he left off

7 The individualized work is continuously supplemented by a series of creative socialized activities in which the children are given ample opportunity to utilize the facts and processes they are learning, to consider carefully the relationships involved, and to make generalizations In this way the work is extended beyond the level of concrete experience

Values of visual aids Because it is not feasible for the student to have first hand contacts with many aspects of life past and present, extensive use must be made of visual aids to give meanings The motion picture more or less faithfully reproduces scenes, settings, processes, and actions representing the history, literature, and life of all parts of the world The sound film has greatly increased the potentialities of the motion picture as a means of instruction Pictures, graphs, models, posters, maps, clippings, and exhibits are other kinds of visual aids used in our schools Horn has summarized as follows the claims and experimental evidence of the value of these aids [11]

1 Motion pictures like other pictures but to a superior degree contribute materially to the accuracy, the richness and the significance of students concepts This is particularly true of descriptive aspects Places, people events, and processes are made to seem more real

2 As a consequence thinking is made more effective, empty verbalism reduced vocabulary increased and language made more meaningful

3 Learning is made more active the imagination is stimulated, students write more, talk more, carry on more 'projects' and ask more questions

4 Interest is more easily aroused and maintained

5 Voluntary reading is encouraged rather than discouraged

6 A marked contribution is made to retention

7 Children who are lacking in imagination low in intelligence, or below the average, are helped especially

8 The total desirable results both direct and indirect exceed those attained by any other media that were used in teaching the topics chosen for these various experiments It is important to know however that the best results were obtained when the films were used in conjunction with other recognized methods of instruction

Locating educational films In a number of states and larger institutions of learning such as state universities there are visual education departments that supply films on demand or at a small cost The use of these resources should be encouraged and their latest catalogs of films should be on file in some convenient place There are also similar bureaus in many of the larger cities The production of films to the present time has been handicapped because of the cost of producing them and the lack of any kind of organized effort by educational organizations to develop

[11] Ernest Horn *Methods of Instruction in the Social Studies* (New York, Charles Scribner's Sons, 1937) pp 373 374

See also C F Hoban C F Hoban Jr and S B Zisman *Visualizing the Curriculum* (New York The Cordon Company, 1937)

the field There have been a few non commercial organizations interested in the production of educational films but their product has been small Many of the films produced by the motion picture industry for general distribution are excellent for school use but often the rental is high and they are out of date before they become available Usually they are too long for class use and are not intended for instructional purposes The great value of films as an aid to instruction revealed by their use in the war training program should greatly stimulate their production for wider use in the schools If better films, more closely integrated into the school's program were available, and the cost of the necessary equipment were reduced, there would undoubtedly be a big increase in the use of the film in teaching

The most complete and up to date inventory of available films is the volume, *The Educational Film Catalog*, 1944 edition, compiled by Dorothy Cook and Eva Rahbek Smith and published by H W Wilson Company New York The volume contains a classified indexed list of 2 800 films regarded as suitable for educational use The authors state that there is a quarterly supplement and a yearly revision It is a revision of a volume published in 1939 The annotations are very helpful There are also readily available lists of various kinds prepared by state libraries commercial producers and distributors magazines, centers for obtaining foreign films and similar groups and organizations The Research Division of the National Education Association, Washington D C from time to time supplies bulletins on educational films that give comprehensive overviews of current developments The most recent one is entitled "Sources of Educational Films" (1945) Some state universities and state departments of education also publish catalogs

Improving the use of motion pictures in the classroom Freeman and Wood comment on the place of motion pictures in the classroom as follows [12]

> If the motion picture film is to be of maximum service in instruction it should form an integral and regular part of the curriculum and of classroom work The casual introduction of film into the curriculum without careful planning and careful organization is of comparatively little value In so far as possible, a classroom film should always be used for some definite and particular purpose It should be a necessary link in the chain of development of the subject It should constitute the necessary basis for the understanding by the pupil of the phases of the topic which follow, and a clarifying of those that have preceded
>
> Classroom films therefore, should have a definite sequence They should have a pedagogical relationship to each other to the discussion which takes place in the class and to the pupil's reading in the textbooks and other reference works When this is the case the effect of a series of films is cumulative That is the effect of two films is greater when they are used together than the sum of the effects of the two films when they are used separately

[12] B D Wood and F N Freeman *Motion Pictures in the Classroom* (Boston Houghton Mifflin Company 1929) pp 223 225

Again, the film should be used in close relationship to explanatory discussion The film itself will not ordinarily be completely self explanatory It will supplant none of the ordinary media of instruction—least of all the teacher The function of the teacher is to guide the pupil in discovering the explanations of the scenes which are presented in the film and to help him to understand those features which may not be clear This does not mean that the teacher is always to tell the pupil everything which is not clear to him at first sight It is frequently better practice to encourage the pupil to puzzle out the explanation of the picture himself At what point the teacher should tell the pupil has to be determined in each particular case It is clear, however, that the teacher has a definite function in directing the pupil's attention toward the salient aspect of the film and in helping him to help himself in interpreting the film

Such supplementary help as must be given to enable the pupil to understand the film may be provided in various ways One method, of course, is to give *directions and statements of fact* in the printed captions of the film In the present series of films very sparing use was made of subtitles This is undoubtedly wise as a general policy Whether in every individual case the decision to omit a subtitle was correct demands, of course, further experimental investigation The other method is for the teacher to supply the necessary guidance to the pupils by verbal comment either before, during, or after the presentation of the film There is a general prejudice among specialists in visual education against having a teacher talk during the showing of the picture The prejudice is probably due largely to the fear that the teacher will not give the verbal comments in a skillful manner However this may be, the whole question opens up a large field of investigation

While the films should be planned so that they can be used as an integral part of a course of study this does not mean that they can only be used in a given, fixed order or under a given plan of development of the subject Usefulness of the films will be seriously limited if they demand that all teachers who use them follow a rigidly uniform course of study The films should be so flexible that they can be *incorporated into a variety of difference courses* They *should not* dictate the organization of the course, but should be capable of adaptation to the course It is probable that ultimately the films will be produced in varying units It would be strange if all topics could be treated advantageously in units of the same length Furthermore it is probable that many film units can advantageously be shorter than the standard fifteen-minute unit The shorter units will be more conveniently adaptable to various contexts than the longer ones

The value of audio aids There are several important kinds of audio aids to instruction, including the radio and the phonograph Not only do these aids affect instruction but they are widely utilized in life outside the school as a means of recreation and enlightenment The potential uses of the radio and phonograph in classroom instruction have barely been touched in this country The conscious use of the radio as a social force by Hitler is ample testimony of the power of this instrument The schools are face to face with the need of adopting some policy as to the extent to which steps should be taken to guide the learners' choices of program and their methods of listening The possible use of the radio as an instrument of classroom instruction raises many administrative and teaching problems The effectiveness of the radio compared with other kinds of instructional aids must be determined and its peculiar contribu

tions established The apparent advantages of the radio as a means of instruction have been summarized by Cantril and Allport as follows [13]

1 Radio can reach incomparably larger audiences
2 Figuring per capita cost its services are probably cheaper than any other medium of instruction
3 The varied content possible in its programs promotes interest and attention
4 Its varied methods do the same thing
5 Dramatization and showmanship make education pleasurable
6 In many regions it can supplement poor local teachers with good radio teachers
7 It probably has a favorable effect upon the exercise of visual imagination
8 It can make important events and personages more real to the people
9 It can bring good music into every locality
10 The pupil becomes less provincial in his outlook the excellence of talks and music heard may fire his ambition and arouse talents that might otherwise lie dormant

Teacher-pupil activities in using radio programs Wrightstone [14] reported the results of a survey of the activities of teachers and pupils in utilizing radio broadcasts in the social studies The table below shows the relative frequency with which various activities were used in teacher preparation for the broadcast, class preparation for listening and pupil activities after listening

Activities at Stage of Utilization	*Percentage of Teachers Reporting Use of Activity*
Teacher Preparation for Listening	
1 Teacher read books	60
2 Read magazines	21
3 Collected exhibits	14
4 Constructed test or questionnaire	10
5 Collected library material	28
Class Preparation for Listening	
1 Announced program	90
2 Discussed program	70
3 Listed important points or key words	56
4 Listed names and words occurring in program	70
5 Displayed pictures charts or objects	28
6 Discussed materials brought in by children	21
7 Read stories plays or poetry	45
Pupil Activities after Listening	
1 Discussion (talks reports stories etc)	90
2 Writing (letters, stories, reports etc)	28
3 Artistic (drawing, painting, designing, etc)	10

[13] H Cantril and G Allport, *Psychology of Radio* (New York Harper & Brothers 1935) p 252

[14] J W Wrightstone Pupil Growth Through Use of the Radio *Radio and the Classroom* (Washington D C Department of Elementary School Principals of the National Education Association 1941), p 59

4	Reading (books, magazines, reference books, etc)	14
5	Collecting (notebooks, scrapbooks etc)	7
6	Mock broadcasting (news, drama, music etc)	14
7	Using visual aids (pictures, maps, displays, etc)	21
8	Trips (museums, industrial plants radio stations, etc)	10

These activities suggest the kinds of procedures to be used in preparation for a broadcast and also the steps that may be taken following the broadcast to get the values that accrue from the experience The radio offers the opportunity for many kinds of valuable pupil learnings

Improving the use of the radio and audio aids As a result of the survey of audio aids in Ohio, reported in Chapter X a series of nine recommendations for the improvement of the use of audio aids in the classroom was made by the staff The complete list of recommendations is given below because of its general usefulness as a basis of studying and improvement in this direction in any school system [15]

1 That every effort be made by school systems by parent groups, and by other educational and civic organizations to provide schools with radios
2 That special efforts be made to stimulate the use of radio in rural schools and especially in one room rural schools
3 That schools with central radio sound systems (and other radio equipment) examine carefully the actual and potential uses made of that equipment
4 That schools with record playing equipment make more effective use of that equipment by purchasing records usable and valuable in different curricular areas
5 That school administrators who believe in the educational potentialities of radio not only make public their approval of radio education but also design and put into action a program of radio production utilization, and in service education of teachers
6 That teachers colleges, state and county departments of education, and the administrative units of city school systems develop more effective programs for the pre service and in service training of teachers in the use of radio in the classroom
7 That broadcasters particularly the network broadcasters, design their school programs for elementary school listeners
8 That teachers and administrators interested in the educational values of radio listening at home become familiar with the rich variety of programs on the air
9 That teachers and administrators reexamine their curriculums to see whether radio should or should not be emphasized in different courses and in different grades

The use of the phonograph The use of the phonograph should be greatly extended in our schools It can be used when there is no radio available When records are at hand they can be used at any time they

[15] Radio in the Schools of Ohio,' *Educational Research Bulletin*, Vol 21, No 5 (May 13 1943) pp 115 148

may be needed—an advantage they have over the radio The records can be repeated as often as is desired The results of what is undoubtedly the most comprehensive investigation to date of the use of the phonograph in the classroom are given in a recent report of an experiment in the rural schools of New York Miss Bathurst summarizes the suggestions and recommendations about the use and production of records growing out of this study as follows [18]

1 When properly made for the purpose the phonograph record is a useful aid to learning in the rural elementary school
2 To be a useful learning aid the record's content must not only be carefully selected but keyed to the curriculum and to the experience and ability of the children with whom it is to be used This requires competent curriculum research
3 The effectiveness of the phonograph record is dependent not only upon its content but also upon the skill of the script writer the skill of the actors or persons making the recording and the quality of production in its manufacture
4 The chief test of the value of the phonograph record as an aid to learning is the extent to which it stimulates children to pursue other useful learning activities such as group discussion observation of their surroundings and the use of reference works to find the answers to their own questions
5 A secondary test of the record's value is observed in the children's responses—their exclamations of approval the character of their discussion, and the number of times they ask to have the record replayed
6 In many areas such as bird study regional studies and study of environment the phonograph record is a more effective aid when supplemented by visual aids such as lantern slides or mounted pictures
7 The phonograph record should be planned as a supplement to and not as a substitute for other teaching aids such as the radio the sound film and the printed page
8 The phonograph record should be designed to aid the teacher where sound is especially important as in the recording of songs of birds and the record on choral speaking The elementary school has need of many series of records of this type
9 Since the teacher in rural schools has limited supervisory assistance the phonograph record can provide some of the help that would be given by a master teacher in specialized areas This is illustrated by Allen's records 'Do You Know the Birds?' Using these records the children are in the presence of master teachers of elementary school science children's literature, and creative writing
10 The phonograph record may enrich children's opportunity for learning through bringing the artist into the classroom, as in Dorothy Lathrop's How I Make My Books
11 Production of phonograph records as an aid to learning requires skill in the techniques which have proved effective in producing radio programs but the record has three values not inherent in the radio program it can be adjusted to the time schedule of the classroom it is available for replaying or review, and it can be used in schools which are not equipped for using electrical transcriptions of radio programs

[18] Effie G Bathurst *Phonograph Records as an Aid to Learning in Rural Elementary Schools* (Albany N Y State Education Department 1943) pp 148 149

The use of apparatus in diagnosis and treatment In recent years there has been a rapid development in the use of various kinds of apparatus for diagnostic and remedial purposes, especially in the field of reading They are highly technical in nature and special training in their use is necessary They are mentioned here briefly to bring them to the attention of the readers Some of the most important are the following

Betts Telebinocular Tests, distributed by the American Optical Company Southbridge Mass measure a number of important visual traits

Ophthalmalograph distributed by the American Optical Company is an instrument which produces a photographic record of eye movements

Metronoscope distributed by the American Optical Company, is a device for improving eye movements

Harvard Reading Films distributed by Harvard University for a small charge are designed for improving eye movements

Means of promoting uses of instructional materials The supervisor can use various means of making teachers aware of the educational values of concrete materials and stimulating them to use new kinds of instructional materials

Exhibits The supervisor can arrange exhibits of supplies in some centrally located place Traveling museums art exhibits and libraries are also very helpful in bringing materials to the attention of teachers Exhibits during Book Week are used in many systems Publishers exhibits at teachers' conventions and elsewhere are other means of making teachers aware of the existence of new kinds of materials

Materials bureaus The supervisor can make available for teachers on their requisition collections of various kinds of materials such as slides books, pictures, and the like which the ordinary teacher cannot collect unaided The pooling of the resources of several schools will greatly increase the amount and variety of materials available for all of them

Surveys of the community The supervisor can assist teachers greatly by making a systematic survey of the places in the community which are suitable for excursions and for illustrative purposes, in connection with the study of social institutions and occupations The attention of teachers can be called to places of historical interest and natural beauty Arrangements can be made with such local interests as industries, banks, the post office, and so on for their first hand observation by pupils A direct study of the current health, social and economic needs of the community through teacher excursion and study groups will be a rich source of suggestions of problems that are likely to be of vital concern to large numbers of pupils

Intervisitation If teachers are given the opportunity to study the kinds of materials in use in other schools and classes in terms of their value to children they ordinarily have been led to introduce new kinds of equipment into their own classrooms Reports of observations by representative teachers have also been found to be very fruitful

Demonstrations In many school systems the supervisors or some teachers demonstrate for groups of teachers the use of new kinds of materials being introduced into the schools The wise supervisor will be on the lookout for interesting and suggestive work being done by individual teachers which should be brought to the attention of all teachers through demonstrations

Study groups It is often helpful to organize study groups of teachers who wish to increase their skill in the use of new kinds of materials Such groups can also make a systematic appraisal of the available supplies and equipment with a view to the elimination of unsatisfactory materials and the recommendation of the purchase of additional supplies

Experimental studies The supervisor should encourage the teachers to make experimental studies of the values of new kinds of materials Such investigations need be nothing more than a systematic recording of the reactions of pupils to the various items It has been repeatedly shown, however, that there is awakened a real interest on the part of teachers in the study of the value of materials when they have participated in a well planned investigation of an experimental kind

SECTION 2

IMPROVING THE SOCIO-PHYSICAL ENVIRONMENT OF THE SCHOOL

Improving physical facilities The requirements of a curriculum that stresses enrichment of learning as well as pupil activity demand physical facilities that are adapted to such a program Long made a study of the available facilities for grades kindergarten to sixth of twenty schools selected 'because of the progressive educational practices which were being employed in them" The schools were all located in New York New Jersey, and Connecticut Twelve of the buildings were relatively new and the remaining eight had been built fifteen or more years earlier Principals and teachers were asked "what changes in the building equipment, and grounds would be most helpful in carrying out their work?' The suggestions they made were divided by Long into three groups as shown in the following outline [17]

I The entire building with the exception of classrooms
  1 Separate auditorium and gymnasium
  2 Combined auditorium and gymnasium with at least one additional room about twice the size of the regular classroom for extra auditorium purposes
  3 Gymnasium at least 40 by 60 feet in size
  4 Some gymnasium and indoor play equipment
  5 Larger auditorium
  6 Smaller auditorium
  7 Portable moving picture machine

[17] Frank M Long *Desirable Physical Facilities for an Activity Program* Contributions to Education No 593 (New York Bureau of Publications Teachers College Columbia University 1933), pp 73 74

8 Portable radio
9 Private office
10 Special rooms—these including science art, and music
11 Special rooms, about twice the size of the regular classroom to be used for a variety of purposes by any teacher
12 Library
13 Teachers preparation and rest room

II Classrooms
1 Increase in length of about one fourth or one fifth to give enough space for the activity program
2 Separate alcove for the construction work or for group and committee work
3 Wardrobes built into wall with folding doors to provide increased floor area
4 Running water, both hot and cold, in every room
5 Drinking fountain in every room
6 Toilet facilities in connection with every room
7 Storage facilities
a Individual compartments, large enough to be useful, for each child
b Distribution of these compartments to relieve congestion
c Provision for storing large materials and supplies
d Increased provision for storing general materials
e Provision for storing blocks and toys in the primary grades
f General storage room on each floor
8 More bulletin board space
9 Less blackboard space
10 Bulletin boards and blackboards placed at a lower level in the primary grades
11 Bulletin boards and blackboards placed at a lower level in all the grades
12 Outside door for each room on the first floor
13 More special equipment—display space for books and magazines construction equipment, screens easels sewing machine, cooking equipment, aquaria, window boxes, ferneries, sand table, provisions for pets, housekeeping materials rugs and especially for the kindergarten fireplace bay window, window seats, provision for floating toys and sailing boats, blocks, and a terrace
14 Better facilities for taking care of children's wraps

III Grounds
1 More space available for play and games
2 Equipment for both younger and older children's playgrounds
3 Provision for gardens
4 Playground for younger children, separated by fence wall or shrubs from remainder of grounds
5 Provision for pets
6 Provision for birds
7 Suitable playground surface

The items in Long's list can be used by the supervisor to check the adequacy of the facilities of elementary schools The list should also be of value in planning the construction of new buildings

The value of checking building equipment has been quite fully discussed in Chapter X and will not be reviewed at this point Suffice it to

say that if buildings are constructed according to up-to-date specifications[18] that are now available, there will be little cause for complaint about the adequacy and merit of school buildings

It is extremely difficult to set up standards on such points as ventilation, lighting and similar points about buildings because there is a lack of agreement among authorities relative to these items There are even differences among experts in interpreting the results of experiments Tinker comments on the difficulty of setting up standards for illumination as follows [19]

Since so many factors (distribution of light, condition of the eye, etc) are involved in determining hygienic illumination it is hazardous to set up standards of light intensity for reading It is possible however to suggest tentative specifications that provide for a margin of safety for efficient and comfortable seeing Never read in light of less than 5 foot candles unless there happens to be a very bad arrangement of direct lighting In such a situation a slight reduction in the brightness will be less fatiguing to the eye with the fair distribution of light that is found in most homes use 5 to 10 foot candles with good distribution of light use 10 to 15 foot candles If no glare is present higher intensities may be employed with safety but without any practical advantage A recent international commission on illumination recommended 8 foot candles as a minimum in classrooms

In certain situations higher intensities are essential for hygienic vision Both the defective eye (refractive error) and the eye changing with age (presbyopia) are benefited by relatively bright illumination Light intensities should be increased somewhat when poorly legible print is being read or when very fine details are being discriminated

Recent trends in classroom construction Another valuable publication in this field is the report compiled by Jean Betzner, entitled "School Housing Needs of Young Children" published in 1939 by the Association for Childhood Education Washington, D C This 40 page bulletin contains photographs of modern classrooms and classroom equipment, a discussion of the materials and standards, and a selected bibliography on the subject

A still more recent publication is Portfolio A, *Elementary School Classrooms,* compiled by N L Engelhardt and School Planning Associates, and published by the Bureau of Publications Teachers College Columbia University in 1941 It contains a collection of classroom plans from all parts of the country and represents many different educational philosophies The details of the plans were carefully analyzed and the findings discussed Eighty plates are presented with sixteen pages of discussion, check-lists, index, and an excellent bibliography This material contains a wealth of valuable information to be used by groups planning classrooms adapted to instructional needs

[18] Alice Barrows Functional Planning of Elementary School Buildings Bulletin No 19 (Washington, D C United States Office of Education 1936)

[19] M A Tinker Facts Concerning Hygienic Illumination Intensities *School and Society* Vol 47 (January 24 1938) pp 120 121

Very few studies have been made in the field of secondary-school building standards A helpful set of criteria for studying the site, building, equipment, special services, special characteristics of the plant, and general evaluation of the plant is given in the volume, *Evaluative Criteria and Educational Temperatures,* 1940 edition, published by the Cooperative Study of Secondary School Standards, Washington, D C

The magazine *Pencil Points—Progressive Architecture* (published by Reinhold Publishing Company, New York), from time to time contains pictures of new types of school buildings The April, 1945, number was especially rich in illustrations of modern school buildings

SECTION 3

IMPROVING THE USE OF COMMUNITY RESOURCES TO VITALIZE INSTRUCTION

Vital learning experiences in the community There has been steady progress in this country toward the use of the community to add greater vitality and reality to school experiences Concreteness is secured by bringing the pupils into contact with geographical and physical features of the community life By observing the activities of members of the social group, the learners are brought into contact with many social and economic relationships and may gain a better understanding of aspects of life in a modern society They become familiar with the opinions, attitudes, prejudices, and purposes of people

The supervisor should help the teachers to examine the community to locate sources of concrete instructional situations and illustrations The school should also secure the cooperation of interested groups of laymen in the study of local questions such as public health, recreation, guidance relief, religious education delinquency and the like These should then be related to the course of study and their possible usefulness recognized To lead to the easy use of these experiences necessary administrative adjustments must be made by the principal and supervisor

Two kinds of community contacts have been recognized In one kind the contacts come into the classroom, as when exhibits are brought into the school or when some business man addresses the students on topics related to his occupation and its community relations In the other kind of experience the pupils leave the school and see the agency or activity in its natural setting, for example, they may visit a creamery, interview some governmental agent or visit a "sweat shop" to gather information about working conditions

The activities in which the pupils may engage may be of various sorts The three most common types are

1 Observation
2 Contributory activities
3 Actual participation in the study of community problems

Observation experiences Most of the contacts between classroom instruction and the community are observational in character excursions to factories, zoos, airports, farms, or stores They make possible the first-hand study of community agencies An excellent illustration of the use of excursions to make instruction concrete is the following series of descriptions of field study units in a course in history offered at the teachers college in Montclair, New Jersey [20]

SYLLABUS OF A FIELD COURSE FOR TEACHERS [21]

Field Study No 1 Levels of Living What is the American standard of living? The answer is found by visiting middle class homes in the suburbs, tenements on the East Side luxurious uptown apartments as well as the resorts of the destitute such as rooming houses missions settlements and squatters' shacks Ventures in cooperative housing are also investigated as a part of this study

Field Study No 2 Racial Adjustments Harlem one of the largest Negro communities in the world affords a unique opportunity to study the life of the urban Negro—his home his religious activities his education his recreational opportunities, his ventures in business and industry, his contributions to art literature and music—and also the agencies at work to promote better interracial understandings

Field Study No 3 Foreign Cultures in New York America in the making is the theme of this field trip The varied culture patterns characteristic of the foreign peoples who contribute to the cosmopolitan mosaic of New York are the direct objects of the study Synagogue and cathedral pizzeria and hofbrau theater and folk festival native school and assimilation agency music and personal experiences street scenes and tenements—all help to create an understanding and appreciation of the materials out of which our country is made

Field Study No 4 Economic Institutions and Conditions Making a living is the major problem of most Americans How it is done is seen in a sweat shop a factory a hotel kitchen behind the scenes of a theater in the plants that produce our newspapers and our automobiles and in the banks and exchanges of the money mart Economic institutions and conditions are studied in the light of changing social life

Field Study No 5 Transportation and Communications Some insight into the intricate mechanism of our system of transportation and communication is gained by visiting departments of the metropolitan railroad terminal not seen by the casual traveler, the working sections of a large city post office an ocean liner a transcontinental telephone exchange and a broadcasting station During the trip the New York Regional Plan is explained by an authority using lantern slides

Field Study No 6 Government and Politics All branches of the Federal government are represented in the metropolitan area Typical peacetime and wartime activities such as the weather bureau and the navy yard are studied In the realm of local government, the city hall and certain political clubs are visited, and various type of municipal services are studied in action

Field Study No 7 New Jersey Institutions New Jersey state and county institutions are among the best in the country, but many citizens know little or

[20] E C Bye, Peripatetic History' *Education*, Vol 55 (June, 1935) pp 605 608

[21] New Jersey State Teachers College *Field Study Courses in Social Science* (Upper Montclair N J State Teachers College 1935) p 5

nothing about them Through direct observation, vivid impressions are gained of what is being done for the deaf, the insane, and the pauper The state capitol and a typical county court house are visited and the Essex County park system observed and explained "

Field Study No 8 The Prevention and Treatment of Crime Crime is a fascinating subject, but a sympathetic understanding of its causes and treatment can come only through visits to courts, police headquarters, reformatories, and prisons The metropolitan area affords excellent material for this study

Field Study No 9 History of Manhattan and the Lower Hudson Valley To understand any region one must know its history Colonial and revolutionary culture patterns are rediscovered in such places as Fraunces Tavern the Museum of the City of New York, Hamilton Grange, the Morris Jumel Mansion, the Philips House at Yonkers, the Dutch Church at Tarrytown Stony Point Battlefield and the André region at Tappan The route for this trip passes through beautiful scenic country on both sides of the Hudson, from Manhattan to Bear Mountain

Field Study No 10 The American Revolution in New Jersey To be able to read the history of familiar territory in the houses and hills, the roads and rivers is a source of unending pleasure and entertainment This study explores the high points of the Revolution at Morristown Somerville, Springfield, Washington Rock Washington Crossing, Rocky Hill Princeton, Trenton, and Freehold

The following statement[22] presents an excellent series of excursion possibilities for children in the elementary grades of a large city It can be adapted to the possibilities of any community

1 How do people on various social and economic levels live?
   a The richer residential sections of the city i e Park Avenue Fifth Avenue Riverside Drive and Central Park West
   b The poor residential sections of the town, i e , Lower East Side
   c The wealthy hotels i e Waldorf Astoria
   d The breadlines
2 How can housing for the poor be improved?
   a The Lavanbury Houses
   b Cooperative houses
3 What are the racial and religious groupings of the community?
   a Little Italy Little Russia Harlem Chinatown, and Yorkville
   b Temple Emmanuel and East Side Synagogue the Cathedral of St John the Divine, St Patrick's Cathedral, and Riverside Church
4 How does the city get its power? A large power plant
5 How do people make a living?
   a The garment center
   b Wall Street
   c A metal manufacturing firm
6 How and where do people get their life necessities?
   a A dairy farm
   b A bottling plant
   c A bakery
   d A clothing factory

[22] W A Weaver 'Excursions in a Metropolitan Center' in *Aids to Elementary School Teaching Thirteenth Yearbook* of the Department of Elementary School Principals (Washington D C National Education Association, 1934) pp 292 293

e A department store
f A freight depot
g A trucking corporation

7 How do people travel to places?
a Subway and surface cars
b A ferry
c Bridges
d Automobile assembly plant

8 How do people communicate?
a A telephone exchange
b The central post office
c A central telegraph office
d A radio station

9 How are people informed about events?
a The city room of a large newspaper

10 How do people govern themselves?
a A political rally
b A meeting of a legislative body

11 How are people protected?
a The police department
b A magistrate's court
c A fire station
d The street cleaning department

12 How do people enrich their lives?
a A recreational center
b A public library
c The theater section
d A museum
e A radio broadcasting studio

13 How does a particular community exchange products with the outside world?
a A railroad depot
b A steamship dock
c An airport

14 How do people work towards another social order
a A meeting of a party aiming at social reconstruction
b Symposia, debates and discussions

The development of a typical program of excursions The supervisory problems involved in the development of a program of excursions are well illustrated by the procedures followed in Minneapolis in the initiation of an experimental excursion project in the junior high schools of that city The steps in this project as outlined in the report of the experiment follow [28]

A committee considering the problem developed the following viewpoints as a result of its discussion meetings

1 All teachers should have a well-developed knowledge and understanding of the institutions and other environmental factors of the community in which they live and direct the development of children toward participation in community life This will give them a better understanding of the

[28] As given in a mimeographed statement by C C Minty chairman of the Junior High School Excursion Committee Minneapolis Minn

children's individual problems, and give them a background for conducting out of school activities in the curriculum

2 Teachers will welcome an opportunity to become better acquainted with the community and its resources particularly if participation is made convenient, pleasant and educationally profitable and will be willing to participate in a discussion of these trips after they are taken

3 The junior high school is organized on a departmental basis and several difficulties make the excursion of an entire class group with their teacher appear to be less practical than in the elementary school For this reason an experimental excursion project has been proposed by the committee seeking to enrich the experience which may be brought to the classroom through the excursion experiences of teachers and class representatives

The steps of this proposed experimental project were listed as follows

A Present the project to the junior high social science teachers in a meeting

B Select one experimental excursion experience for each grade 7 8-9 which will have an appeal to the teachers of that grade as likely to be valuable for pupil visits or a trip that will show the importance of the community as an educational factor

C Arrange with management or proper people for teacher visits to the selected institutions

D Preparation of stenciled and printed descriptive material for distribution prior to or at the time of the excursion of teachers

E Taking of film strips (series of still pictures) to be duplicated and made available for classroom use following excursion by class representatives

F Excursion by teachers

G Excursions by class representatives

H Presentation to class by pupil representatives with assistance of teacher literature and film strips

I Questionnaire to establish basis of group meeting to evaluate the experience

The essential point involved in this procedure is that teachers themselves were actually to participate in excursions to consider their values and the teaching problems involved before the program of excursions for pupils was to be undertaken

The following classified list of possible places for teachers to study and visit in Minneapolis was worked out by a committee which was in charge of the Minneapolis experiment It suggests a basis for a survey of similar places in any locality

PRELIMINARY LIST OF COMMUNITY INSTITUTIONS AND POINTS OF INTEREST IN MINNEAPOLIS SUGGESTED FOR TEACHER STUDY

Social Welfare

Phyllis Wheatley House
Salvation Army Industries
Union City Mission
Mission Farm Medicine Lake
Augustana Mission Colony
Ebenezer Home for the Aged
Catholic Boys Home
Curative Work Shop
Society for the Blind
Children's Gospel Mission

Governing Bodies

State Supreme Court
State Legislature
Federal Courts

PRELIMINARY LIST OF COMMUNITY INSTITUTIONS AND POINTS OF INTEREST IN MINNEAPOLIS SUGGESTED FOR TEACHER STUDY (*Continued*)

Governing Bodies

District Courts
Municipal Courts
Traffic Courts
Conciliation Courts
County Commissioners
City Council
Mayor's Office

Historical

Godfrey House—Pioneer Exhibits
Walker Art Institute—Indian Relics and Pictures
Historical Tour of City
Sibley House—Pioneer Relics
Faribault House—Indian Relics
Fort Snelling
Minnesota Old Soldiers' Home
Minnesota State Historical Society
Minnesota State Capitol

Leisure Time Activities

Public Library
Commercial Amusements
Park Board Recreation Program
Settlement House Program

Geographical Geological Natural

The Science Museum St Paul
Public Library Museum
Zoological Museum University of Minnesota
Geology Trip to Junction of Mississippi and Minnesota Rivers
Geology Museum University of Minnesota
Lake Harriet Gardens
Glenwood Wild Flower Gardens
Lyndale Gardens
View Twin Cities Areas from Foshay Tower
View Twin Cities Areas Northwestern Bell Telephone Building
View Twin Cities Areas from Court House, St Paul
Mushroom Caves
Como Park Zoo and Botanical Gardens
A Nursery
A Florist
University Farm

Transportation and Communication

Great Northern Railroad Station
United States Post Office
Northwestern Bell Telephone Company
Union Bus Depot
Railroad Shops
Newspaper Offices and Plant
Radio Broadcasting Company
Bureau of Engraving
World Chamberlain Field
Western Union Postal and Telegraph Company
Barge Terminal
Twin City Rapid Transit

Business

Department Store Daytons
Office Workers—Northwestern National Life Insurance Company
Retail Credit Association
Banking—Northwestern National Bank
First National Bank
Federal Reserve Bank
Midland Cooperative Association
Sears Roebuck

Governmental

The State Prison Stillwater
The State Reformatory for Men Saint Cloud
The State Reformatory for Women Shakopee
State School for the Blind Faribault
State School for the Deaf, Faribault
State School for the Feeble Minded Faribault
State Hospital for the Insane St Peter
State Hospital for the Insane, Hastings
State Training School Red Wing
Glen Lake School for Boys
County Jail
City Jail

Governmental Services

Health Department
City Hospital
Filtration Plant
Police Department
Fire Department

Governmental Services

Civil Service Commission
Board of Education Supply House
Weather Bureau
Narcotic Division
Federal Housing Project
City Planning Department
C C C Camp
Welfare Department
Board of Estimate and Taxation
City Assessor
W P A Project Administration
Emergency Relief Activities
Department of Parks and Playgrounds
U S Veteran's Hospital
Minnesota Old Soldiers Home
Fort Snelling
U S Post Office

Cultural

Minneapolis Institute of Arts
Swedish Art Institute
Walker Art Galleries
University Art
Minnesota State Capitol
Court House, St Paul
Beautiful Minneapolis Churches

Industrial

Creamery
Bakery
Cream of Wheat
Land O Lakes
Bemis Paper Bag Company
Meat Packing Plant
Honeywell Heat Regulator Company
Minneapolis Ornamental Iron Works
Waldorf Paper Company
Sash and Door Manufacturing Company
Chemical Plant
Washburn Crosby Mills
City Market
Munsing Wear
Strut Wear
Wholesale House

Educational Opportunities

University of Minnesota
Dunwoody Institute
Boys Vocational School
Girls' Vocational School
Art Schools
Commercial Schools
Hamline University
MacAlister College

As a result of this experimental work a complete program of excursions and visits has been worked out for all levels of the schools of Minneapolis and is now a vital part of the curriculum Similar programs are now found in a considerable number of places, however, they are usually conducted on a much smaller scale

The management of school excursions Horn has summarized the basic supervisory aspects of the conducting of excursions as follows [24]

1 Excursions should be strictly subordinated to the course of study in the social studies Pleasure jaunts or sightseeing trips may be justified as a part of the school's recreational program but in most cases they cannot be defended on the ground of their contribution to the social studies
2 Excursions should be selected and planned because they make a contribution greater than or different from that of any other school activity
3 An important factor in choosing an excursion is the student's background of experience It is obviously a waste of time to take students on excursions to gain concrete knowledge that they already possess
4 There should be a clear recognition on the part of both students and teachers of precisely what is to be accomplished on the excursion
5 The greatest value is obtained from excursions that have been carefully prepared for in the regular work of the school, through readings, discussions, and in case some industrial process is to be observed carrying

[24] Horn *op cit*, pp 410 419

out certain parts of the process in a simple way in the classroom For example, the value of a visit to a woolen mill is enormously enhanced for students who, as a part of their classroom work have actually carried out in a simple way, the processes of washing, carding, spinning, and weaving

6 Excursions should be carefully planned with a view not only as to what is to be accomplished but also as to the manner in which the trip is to be made It is essential that the teacher, or in the case of older students some responsible committee should go over the route, make a careful study of the resources of the place to be visited, and make sure that permission and cooperation are secured from the owner or custodian The most successful excursions are those which are planned cooperatively by pupils and teacher and in which the pupils themselves take a large part of the responsibility for making the excursion a success Excursions in which students assume a large part of the responsibility for planning and management are not only more profitable but very much more smoothly carried out than those under the rigid direction of a teacher Learning to cooperate is, under these conditions, a very important by-product

7 Any excursion worth taking is worth spending time on after it is over At least one period should be spent in discussing it The information gathered should be used to solve the problem for which the excursion was undertaken If it has been a success there will be many questions to talk over Care must be taken however to see that the activities that grow out of it are clearly needed Excursions are sometimes made unpopular by burdening the students with so many subsequent tasks as to lead them to look forward to the next excursion with very little enthusiasm

8 It is essential that the cooperation of parents be secured Many schools follow the practice of requiring the written permission of parents, usually by requesting their signature to a printed or mimeographed form that states the purpose of the excursion, the way in which it is to be taken and the cost

9 It is imperative that every precaution be taken to guarantee the safety of the students in transit Whether the students walk or ride, the danger of accidents is minimized by leading them to accept the responsibility for meeting the requirements of safety An important by-product of this is the understanding of the ways in which the hazards of highways may be reduced

10 One of the most important values of the excursion is an interest in the problems and resources of the community One student for example traced his interest in pottery to a school journey and another reported that she had returned to the Metropolitan Museum five or six times after visiting it with her class and had induced her parents to go with her Not all communities have access to museums, but every community has resources that should not be neglected

Pupil participation in improving conditions in the community In the participatory type of contact the pupils take some sort of active part in a community enterprise The pupils actually engage in some activity which adds to the meaning of their experience and increases the wideness and effectiveness of their participation in the affairs of the community in which they live An excellent example of the kinds of participatory contacts pupils may make is the following outline of possible activities devel-

oped as a joint enterprise of the Civic Pride Association of Greater Detroit and the schools of that city The activities were to be those in which the children of the city would and could actually participate [25]

POSSIBLE ACTIVITIES OF CIVIC PRIDE JUNIORS

A Healthful City
- 1 Things which child could do himself
  - *a* Killing rats
  - *b* Killing all insects
  - *c* Keeping animals clean
  - *d* Prohibiting spitting on sidewalks
  - *e* Reporting all contagious diseases to board of health
  - *f* Having board of health inspect homes that are not fit to live in
  - *g* Reporting to board of health any violations of health regulations
  - *h* Insisting on children coming to school clean
  - *i* Removing unnecessary clothing in school
  - *j* Bathing regularly
  - *k* Keeping windows open while sleeping
  - *l* Trying to get children not to play with rubbish left in alleys
- 2 Things on which child would need adult help
  - *a* Providing smoke screens on all factories, large buildings trains etc
  - *b* Disinfecting garbage cans
  - *c* Prohibiting farm animals in city
  - *d* Keeping ice in summer
  - *e* Keeping screen doors and windows in summer
  - *f* Reporting violations of pure food laws
  - *g* Doing away with dead animals
  - *h* Putting garbage in tin can containers and keep covered
  - *i* Having public rest rooms
  - *j* Having teachers and parents teach correct health habits
  - *k* Establishing a municipal hospital
  - *l* Getting toxin antitoxin treatments
  - *m* Getting vaccination

B Clean City
- 1 Things which child could do himself
  - *a* Keeping alleys streets and sidewalks clean
  - *b* Keeping garages and porches clean
  - *c* Keeping yards clean
  - *d* Sweeping sidewalks
  - *e* Getting rid of glass and tin cans
  - *f* Cleaning cages for pets
  - *g* Cleaning all vacant lots
  - *h* Trying to get children to clean their feet before entering a building
  - *i* Raking up and burning dead leaves
  - *j* Putting empty cans and bottles in receptacles
  - *k* Keeping billboards clean (billboard license ordinance)
  - *l* Collecting loose papers

[25] Reported in *The Social Studies Curriculum, Fourteenth Yearbook* of the Department of Superintendence (Washington D C National Education Association 1936) from a typewritten statement by Anna Willard Winkler, teacher of social studies in Hamtramck Mich pp 263 265

2 Things on which child would need adult help
- a Providing smoke screens on all factories, large buildings, trains, etc
- b Disinfecting garbage cans
- c Prohibiting farm animals in city
- d Putting rubbish in separate containers from garbage
- e Having no dumps
- f Making storekeepers assume responsibility for keeping the pavement in front of their stores clean as well as alleys in back
- g Keeping ashes in ash cans
- h Burning piles of rubbish
- i Sprinkling all streets daily
- j Paving alleys
- k Appointing committees to see that school buildings are kept clean
- l Cleaning homes thoroughly at least once a week windows, floors woodwork, basements, and attics

C Safe City

1 Things which child could do himself
- a Repairing fences porches and walks
- b Refraining from playing with matches
- c Driving carefully
- d Keeping glass out of streets
- e Removing fire hazards
- f Obeying traffic rules

2 Things on which child would need adult help
- a Completing buildings left unfinished
- b Locating schools properly
- c Widening main streets
- d Providing stationary street signs
- e Providing police cars of the same make (easier recognition)
- f Providing rigid building inspection
- g Building of a viaduct at Conant
- h Providing more fire escapes (ordinance)
- i Prohibiting parking on main streets (ordinance)
- j Prohibiting children on streets after 11 00 P M
- k Paving streets
- l Keeping buildings in repair
- m Keeping live electric wires covered

D Beautiful City

1 Things which child could do himself
- a Refraining from defacing of public property
- b Planting trees, shrubs, bushes, grass
- c Planting gardens
- d Watering and caring for lawns
- e Providing window boxes
- f Trimming hedges and grass
- g Keeping gates and garage doors closed
- h Pulling out weeds
- i Building bird houses for birds
- j Planting flowers on vacant lots

2 Things on which child would need adult help
- a Building better and new city hall
- b Controlling of billboards and posters by ordinance

c Widening main streets
d Placing electric wiring underground
e Prohibiting commercial trucks on main streets (ordinance)
f Repairing fences, porches, and walks
g Keeping building in repair
h Keeping signs off house and electric poles
i Providing boulevard lights
j Having monuments of famous men
k Decorating rooms artistically
l Decorating homes inside and out artistically
m Decorating shop windows attractively

There then follows a series of activities grouped under the headings, 'Orderly City, "City of Security," 'City of Leisure Time Activity,' 'Other Possible Activities"

Contributory activities [26] In the contributory type of contact the pupils make a definite contribution or addition to their environment This involves originality and creativeness on their part A class, for example, may make a survey of health conditions in a community, prepare plans for improving the situation, submit them to local health authorities, and then help to arouse the interest of the community in the enterprise Some of the activities suggested in the list on pages 693 and 694 may be regarded as possible examples of the contributory type of activity This type of activity is increasing rapidly in schools

Criteria such as the following should be considered in selecting community problems for study and investigation

1 The problem should be one that is within the realm of the interest of the pupils, of definite concern to them, and on a maturity level in keeping with their abilities
2 The activity should permit the pupils to assume the responsibilities of citizenship and should be of such a nature that the pupils can complete it with a minimum of adult dominance
3 Special consideration should be given to the study of problems which the community itself asks to be investigated, perhaps after they have been brought to the attention of the citizens by the school This approach insures widespread interest and their willing participation in fact gathering activities and an understanding of the basis of any solutions that may be proposed or adopted
4 The activities of the pupils should lead to actions and conclusions that will be of service to the community
5 The study of the problem should lead to the discovery of a body of information on the basis of which the pupils will be able to formulate sound and significant generalizations

[26] For further detailed discussion of contributory activities see
William H Burton *The Guidance of Learning Activities* (New York D Appleton Century Company Inc, 1944), pp 544 546
Stuart Chase 'Bring Our Youngsters into the Community," *Reader's Digest*, Vol 40 (January, 1942), pp 5-8
Morris R Mitchell and others, "Youth Has a Part to Play *Progressive Education* Vol 19 (February 1942), pp 88 109 Available also as a separate pamphlet

SECTION 4

IMPROVING THE QUALITY OF LIVING IN THE COMMUNITY

The relations of the school and the community The educational program of a community consists of the total range of influences in the environment to which the individuals are exposed The school is obviously the special agency set up by society to guide and direct the learning experiences of the children of the community, however, it is almost everywhere recognized at the present time that there are many other agencies in every community that affect either directly or indirectly the nature of the experiences that condition the growth of the children Sometimes these influences affect growth favorably but in some instances their effects are definitely harmful The home obviously is a major factor in determining the kinds of experience to which children are exposed in life outside the school and homes vary widely in their quality Then there are numerous social influences that must be reckoned with the radio, the motion picture, the press, the church, recreational center, the neighborhood contacts, charitable agencies, youth organizations of all kinds

There are also many governmental agencies that contribute to child development health departments, police and juvenile courts city planning commissions, public libraries, welfare and relief agencies, and others In many localities these agencies proceed altogether independently of each other, duplicating efforts in an uneconomical, inefficient manner and doing little in an integrated way to improve the total environment to which youth is exposed In other places there have been developed systematic plans for bringing about a coordinated attack by all agencies dealing with any aspect of the care and development of the individual Steps are being taken to bring about the elimination of unwholesome conditions in the community through what is most commonly called the "coordinating council" procedure In these councils the schools usually take an active part often assuming the leadership of the community in its endeavors to improve the conditions—social economic, political industrial—under which the youth of the locality grow up It should be recognized that this cooperative movement has developed much more widely in some parts of the nation than in others—for example in California [27] The development of this program should be pushed throughout the entire country Wherever the school takes an active part in the endeavors of the social group to improve its total general level of living we can feel fairly safe in assuming that the influences which condition child development are being raised to a higher plane When the school neglects this problem, the school is not playing its proper rôle

In a number of places in this country the community school has made valuable contributions to the improvement of life in the community

[27] Kenneth S Beam "Coordinating Councils in California" Bulletin No 11 (Sacramento Calif State Department of Education September 1 1938)

Certain principles are emerging from these experiments and demonstrations that can well serve as guides for all schools [28]

1 Since education is a continuous process it cannot be confined within fixed administrative divisions but for education to be most effective, there must be coordination of all educational services in a community
2 When educational activities are based upon the needs and interests of those for whom they are planned, community problems assume primary importance in the school's curriculum and the school utilizes the community resources in the solution of community problems
3 The democratic method in education is a practicable method to use in an educational program based on community problems and interests
4 An educational program designed for all age levels of a community is characterized by flexibility—space and equipment serve multiple purposes the materials of instruction are adaptable and methods pliable requirements for attendance and credit are adjustable
5 The teacher in a community school is a member of the community
6 A community school makes its physical plant and environment a community center and demonstration of desirable operation and maintenance of property

Community use of the school plant The program of the school must recognize the need of those living in the community, especially the children and youth, for wholesome recreation and play For this reason it should arrange activities that permit participation in worth while leisure-time pursuits These may be in the nature of group and club activities discussion groups sports activities, musical and dramatic programs the use of the library, and the like There are many schools that conduct successful recreation centers in the school house Most schools are not well adapted to community programs of this kind but through careful study and clever planning, needed adjustments can be made The school can also serve as a community center concerning itself with broader aspects of the welfare of the entire family and community for twelve months in the year, such as health, planning production programs, improvement of living conditions in the community, and the elimination of community influences that contribute to juvenile delinquency Where these programs have functioned most successfully, there has been a fine type of cooperation between the school and community agencies Seldom do they succeed where the school sets up a program without securing the interested participation of the people of the community in planning the activities

In some states legislation is needed to make such programs possible and to provide the funds that are needed It appears that adequate legislation on this subject should [29]

[28] *Curriculum Reconstruction, Forty Fourth Yearbook* of the National Society for the Study of Education (Chicago, University of Chicago Press 1945) Part I, pp 216 222 Quoted by permission of the Society

[29] *Youth Education Today Sixteenth Yearbook* of the American Association of School Administrators (Washington, D C National Education Association, 1938) p 168

1 Authorize local school boards to establish and maintain social centers in connection with the public schools, specifying some of the principal activities to be maintained
2 Authorize school boards to set aside a certain amount of funds for the maintenance of such functions and to extend to the people the right to increase the amount by an election held for that purpose
3 Provide for the employment of competent directors and personnel to supervise social-center activities
4 Authorize school boards to grant the use of school property to voluntary community organizations to maintain and operate social, recreational, or civic activities, and prescribe under what conditions school properties may be used for such purposes
5 Provide a method whereby, in case school boards do not establish social centers, the question may be submitted to the electors of the district by petition therefor
6 Grant school boards considerable discretionary power concerning the type and character of community activities for which school property may be used

The community workshop approach The Michigan Community Health Project represents another interesting and very valuable method of bringing about an integrated attack on local problems by communities The purpose of this project was to bring to four selected communities the most promising current ideas as to ways of bettering living conditions especially in the field of health, happiness, and well-being of children Community workshops were established where leaders of the community together with members of the staffs of the schools studied local conditions Specialists were brought to these workshops to lead the discussions and to supply expert advice It was believed by those who planned the project that those who were directly concerned with the problems could best work out the answers Some of the assumptions underlying the project were the following [10]

a Rural areas have a variety of resources, human and physical, which with appropriate stimulation and assistance, can be developed into effective forces for human betterment
b The strength and permanence of a program depend largely on the development of local resources rather than the implantation of extraneous and frequently temporary services or facilities
c Steady and more lasting progress can be made if all of the component elements in a community are moving forward at the same time and are coordinating their efforts toward a common goal
d The most lasting contribution of assistance from an outside agency is the education of the people in the area
e The program develops from, with, and for the people of the area

The school and the coordinating council A coordinating council consists of individuals and representatives of local groups that organize for the purpose of working cooperatively to improve the general and

[10] Henry J Otto and others *Community Workshops for Teachers in the Michigan Community Health Project* (Ann Arbor, Mich , University of Michigan Press 1942) p 1

social welfare within the community In the prewar period most coordinating councils were organized for the purpose of ameliorating poverty and preventing juvenile delinquency The problems that grew out of World War II, such as local defense, need of providing recreation for war workers and members of the armed forces, housing problems, racial relations, caring for children of women in war industry, and conservation of resources required the joint action of numerous agencies in all communities of the country The key to the success of these activities was the coordination of the work of all of the agencies concerned In hundreds of localities community councils of different kinds were established These councils were largely advisory in nature Their purpose was to clarify problems and needs and to stimulate existing agencies to more intelligent and cooperative efforts in meeting these problems and needs

The membership of these councils varied from community to community They usually included representatives of various governmental services such as the schools, the courts, health departments, and recreation departments They also included representatives of private social agencies and youth organizations, of civic organizations such as service clubs parent teacher organizations, and veterans organizations, and of religious federations Often this list was supplemented by representatives of industrial groups trade unions and professional bodies such as the Bar Association and Medical Association

The rôle of the school is of particular importance in the work of the coordinating council because it is the only permanent agency which is supported by all of the people and which serves all of the children and youth The special obligations of the school in connection with the activities of the community council are as follows [31]

1 To provide leadership and to act with others in making and keeping the council a potent educational force in the community
2 To maintain the democratic values of group discussion group planning group decision, and the scientific values of objective thinking about controversial issues
3 To guide the council in the use of evaluative procedures so that results may be reliably appraised and purposes adjusted to changing needs
4 To aid in sensitizing the council s membership to youth needs, youth interests and youth problems
5 To endeavor to widen the base of council membership so that young people are included in the deliberations and are encouraged to participate actively in both planning and executing policies

The steps that should be taken in starting a coordinating council in any community are as follows

1 A study should be made to discover pressing problems and needs of the community

[31] From *School and Community* by E G Olsen Copyright 1945 by Prentice Hall, Inc Reprinted by permission of the publishers

2 The limitations of the community and its resources should next be scrutinized to discover people interested in some crucial problem as well as agencies that should be concerned about it
3 A meeting should be called of a few key people to face the facts about the situation that will clarify the problem and reveal its significance
4 Steps should then be taken to develop a small cooperative program to deal with an issue that is of greatest concern to the group
5 The program of activities should be extended slowly and gradually until the group has had considerable experience in working together
6 A conference should then be called of representatives of all community agencies concerned with the general welfare of the citizens of the community Preliminary steps can then be taken to explore the possibility of establishing a council
7 A permanent organization should then be developed This should be kept flexible so that additions can easily be made as the occasion arises
8 Steps should be taken to inform the community about the findings of the council Meetings should be held at which the situation is discussed and the facts are presented
9 Under the leadership of the council a constructive program of social action should then be initiated
10 It is desirable that the results of any action by the council be constantly evaluated so that the community may be made aware of the success of the program undertaken When necessary, adjustments should be made in the activities engaged in

An analysis of the reports of the work of coordinating councils shows that many improvements have resulted from their activities The excellent bulletin, "A Guide to Community Coordination" gives the following list of some of the changes that have taken place as a result of the activities of cooperative group organizations [82]

The following list gives some conception of the improvement councils have made in their communities through cooperative planning

1 *Recreation facilities* Practically all councils report more activity in this field than in any other They report the lighting of playgrounds securing of new playgrounds new facilities, equipment, club houses, swimming pools community centers extending present programs, securing directors, promoting back yard playgrounds improving life guard service, and securing the use and control of streets for play
2 *Improving public service* Councils frequently discover ways by which public service can be extended to areas not yet reached or new forms of service introduced This applies to every type of public service, particularly health, sanitation fire protection, probation, police, libraries, and public schools
3 *Health and safety programs* Clinics for children and mothers have been promoted medical treatment provided for individual cases health education stimulated, and hot lunches provided Councils also have secured crossing guards and have improved traffic conditions
4 *Organizations for boys and girls* Councils assist in the extension of boys and girls organizations through a variety of activities leadership training and promotion, securing leaders for individual groups, assisting in

[82] "A Guide to Community Coordination (Coordinating Councils Inc 1941)

organizing new Boys Clubs, Boy Scout troops, Cub Packs, Girl Scouts Camp Fire Girls Y M C A and Y W C A groups toy loan centers, and vacation church schools The councils are particularly interested in extending these organizations to areas and to groups not hitherto served

5 *Employment for youth* The councils recognize this as one of the major problems facing practically all communities They have assisted by increasing the school facilities for vocational training, counseling and placement service A number of councils have provided special employment bureaus for youth

6 *New Youth groups organized* Councils have endeavored to meet social and educational needs of youth by assisting in the organization and supervision of community dances social outings drama classes, youth forums, courses on the preparation for marriage, home making and parenthood, young married peoples' clubs music clubs, clubs to promote athletics, gardening study of radio bicycle and automobile safety

7 *Educational opportunities for adults* Councils have realized the need of assisting adults as well as youth and have played a prominent part in encouraging Americanization classes public forums, adult education courses citizen education centers consumer education classes parent education classes mothers clubs mothers educational centers nursery schools and leadership training In rural districts councils have assisted in providing recreational counseling for school teachers teacher-training in service and county school trustees institutes

8 *Improving community conditions* Councils have found it necessary in many communities to use their influence in preventing the sale of liquor to minors the circulation of salacious literature the use of gambling machines the showing of undesirable motion pictures and unwholesome conditions in dance halls and skating rinks They have also played an active part in improving housing conditions

9 *New organizations and agencies formed* When a council discovers that a new organization is needed it takes steps to create it and then leaves it to function quite independently of the parent council Councils have thus launched community choruses community theaters motion picture estimate service farm produce markets and cold storage facilities Several councils have successfully organized community chests and social service exchanges Junior councils are now putting in their appearance in a number of cities

Discussion Questions for General Introduction

1 What bearing upon the selection of materials of instruction has the current stress being placed on the fact that we are living in changing emerging democratic society had?

2 Make a brief illustrative list of instructional aids and materials found in modern schools and which were not used in schools fifty years ago, twenty-five years ago

3 What differences are there in the kinds of materials that should be available for pupils on various levels of ability?

Oral Reports for Individuals or Small Groups

1 Examine two textbooks published thirty years apart (longer interval if desired) and summarize the differences and improvements

2 Describe and critically evaluate the procedures used in your school system

for continually improving the instructional materials available Do the same for accessibility of materials

3 Describe in some detail for the benefit of the class any experience you had in participating in workshops organizing and operating a workshop Evaluate the activities and suggest further developments

4 Make a detailed report of the literature on community workshops (This could be a written report if class interest indicated)

5 Describe and critically evaluate the type of excursions made by classes in your system Note particularly preparation necessary dangers, and so forth Note differences in purpose and nature between growth levels

6 Describe and critically evaluate the uses made by the community of the school plant Summarize any literature on recent developments

Written Reports for Individuals and Small Groups

1 Summarize for the class or for your school system the recent developments in classroom construction necessitated by the changing educational program in building planning

2 Develop a plan whereby your teachers could be assisted in making more effective use of instructional materials and community resources

3 Develop a plan whereby you would cooperatively develop and use a workshop in your system (either a summer workshop, or the use of a local workshop as needed during the regular year)

4 All students should quickly read through the two articles (and any other recent ones) by Morris R Mitchell and by Stuart Chase on contributory learning experiences within the community mentioned in footnote 26 on page 695 Describe and critically evaluate similar experiences in your schools (If no plan exists in your system indicate some of the opportunities which might be used)

5 Experienced teachers may report upon any program of observational and participatory experiences carried on in their systems Isolated excursions or random projects need not be reported (This report could be given orally if class interest indicated)

6 Experienced teachers in committee may prepare a list of field trips for teachers based on their own community (This exercise cannot be completed successfully on the basis of memory or general knowledge The committee will need to visit, to consult local authorities use guidebooks and historical references)

7 Teachers in committee may prepare a list of places of interest and value in their own communities which might be used for pupil excursions State whether the specific excursions are to be used within the generalized core curriculum or within a special subject on the elementary or secondary level within the unified elementary program

8 Outline a plan based on your community which might bring about the establishment locally of a community council to study local conditions with a view to improving them

Suggested Readings

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Department of Supervisors and Directors of Instruction *Eighth Yearbook, The Materials of Instruction* (Washington, D C National Education Association 1935)

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——, and ENGELHARDT N L JR *Planning the Community School* (New York, American Book Company 1940)

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Many of the references in the bibliography at the end of Chapter X include numerous suggestions for improving the socio physical environment These sources should be consulted with the references given above

XV

Subsidiary Techniques Employed in Improvement Programs

The preceding chapters presented some of the more general features of improvement programs This chapter presents a discussion of some of the subsidiary techniques employed in improvement programs Two approaches, in general, have been employed in helping teachers and other staff members The first makes growth incidental to a larger program of professional activity centered around real problems The focus is actually upon the ultimate purpose of education, namely pupil growth Teachers, pupils, the lay public sometimes, and all staff members work together upon such problems and incidentally grow in the process The second approach is that of direct training of the personnel for improvement of their techniques and ultimately of professional background and personality The latter has been the common approach The former is more clearly aligned with modern conceptions of leadership

Each approach has value Groups of educational workers and their leaders will doubtless choose between the two in terms of their own insight into leadership, the levels of training and competence present, and other demands of the local situation We emphasize in this volume the kind of help that will come naturally as a part of a larger on-going program of activities wherein pupils, teachers, and supervisors all engage cooperatively in the achievement of the purposes of education and learn while doing so The main difference between this plan and the more conventional approach is probably in the interrelationships among teachers, pupils, parents, administrators, and supervisors, and their attitudes toward each other as they work together There is direct assistance in the so called incidental approach, but it is usually given at points where felt needs have arisen This is an important fact The difference is not in the presence or absence of direct assistance, but rather in the setting for this assistance and the manner in which it is given

We wish now to discuss some of the devices that may be employed both in helping the personnel grow and in promoting the general improvement program The devices to be discussed may be used in either frame of reference The writers believe that the best results will be secured in

the long run when careful attention is given to the principles of learning, teaching, and leadership emphasized in earlier chapters

Devices commonly employed in improvement programs In Chapter IV several illustrations were given of how different persons and communities have gone about achieving certain educational outcomes Within these broad programs of educational leadership are included many subsidiary activities meetings, conferences, workshops, exhibits, lectures, discussions, forums, field trips, organized course work, professional reading and the like—each chosen because of its appropriateness to the particular situation These techniques are all subordinate to some larger purpose of which the stimulation of growth among personnel is merely a part

Most promising techniques as listed by teachers From a detailed study of this subject, Weber listed the improvement techniques preferred by teachers Those techniques mentioned by twenty or more schools are given below It will be noted that the more formal types of supervisory techniques such as visitation and conference do not appear in this list[1]

1 Organizing teachers into committees to study problems
2 Organized study of special topics in general staff meetings
3 Providing a professional library and browsing room for teachers
4 Having teachers (not administrators) give reviews of articles in current educational magazines
5 Giving special financial awards for participation in programs of in service education
6 Cooperatively engaging in a systematic evaluation of the school using the criteria of the Cooperative Study of Secondary School Standards
7 Carrying out a well planned attack upon the problems of curriculum development
8 Holding forums where parents pupils teachers, and board members participate
9 Attending summer workshops
10 Visiting teachers in one's own school or in other schools
11 Holding small group meetings to study revisions of the course of study in a department

The techniques listed as most promising by the teachers of at least ten schools, but fewer than twenty were as follows

1 Panel discussion by teachers
2 Experimentation with new classroom procedures
3 Making surveys of pupil problems
4 Attending professional meetings
5 Having teachers prepare and issue handbooks for new teachers
6 Planning an orientation program for new teachers
7 Holding informal meetings of the staff
8 Home visitation
9 Field trips for teachers
10 Making surveys of graduates
11 Participating in the eight year study

[1] C A Weber Promising Techniques for Educating Teachers in Service *Educational Administration and Supervision*, Vol 28 (December 1942) pp 691 695

12 Participation in inter-school studies of curriculum development
13 Encouraging teachers to write magazine articles by offering cash awards
14 Attending guidance conferences
15 Individual conferences

The following techniques were listed as most promising by fewer than five schools

1 Visitation of classes by the principal
2 Talks by the principal
3 Reading of papers by teachers
4 Using rating scales
5 Requiring special readings
6 Demonstration teaching
7 Issuance of bulletins by the principal
8 Requiring summer school attendance

Teachers and supervisors do not always agree Peterson and Messenger found that teachers and supervisors do not always agree upon the effectiveness of different techniques as shown in the following table

POINTS OF GREATEST DISAGREEMENT BETWEEN SUPERVISORS AND TEACHERS IN RANKINGS OF CERTAIN SUPERVISORY ACTIVITIES IN ORDER OF RELATIVE IMPORTANCE *

Activity	*Supervisors' Rankings* **	*Teachers' Rankings*
1 Plan, conduct, or follow up the results of demonstration teaching	61	3
2 Read educational literature	2	21
3 Attend professional meetings outside the school system	1	40
4 Make case studies of problem pupils or have such studies made	10	4
5 Hold membership or office in professional organizations	7	18
6 Visit other school systems and study educational practices	50	5
7 Provide means whereby teachers may rate systematically their own traits and activities	65	10
8 Direct and coordinate the work of all supervisors in the school	69	11
9 Help to fill vacancies in teaching positions	16	8
10 Cooperate with normal schools, colleges or universities to improve quality of or to increase the number of summer-school extension, or correspondence courses available to teachers	63	13

* O E Peterson and Helen R Messenger "Why Not a Planned Attack on That Forty Year Lag? *Elementary School Journal* Vol 45 (February 1945) pp 317 ff Published by The University of Chicago Press

** The rankings of the supervisors are taken from Fred Engelhardt William H Zeigel Jr and Roy O Billett *Administration and Supervision* pp 155 157 See also National Survey of Secondary Education Monograph No 11, which is the United States Office of Education Bulletin No 17 1932 (Washington D C Government Printing Office 1933)

The teachers in 1945 thought that demonstration teaching was an effective device, supervisors in 1932 thought not, the same was true of case studies and visits to other school systems Supervisors placed a high value on professional reading membership in professional organizations,

and attendance at professional meetings outside the school system teachers did not About the only thing that they did seem to agree upon was the value of classroom visitation and conference (See the table on this page) The findings of this study as they relate to the preferences of teachers differ greatly from those of Weber's study This is probably what one would expect inasmuch as the samples of opinion were taken thirteen years or more apart

POINTS OF GREATEST AGREEMENT BETWEEN SUPERVISORS AND TEACHERS IN RANKINGS OF CERTAIN SUPERVISORY ACTIVITIES IN ORDER OF RELATIVE IMPORTANCE

Activity	Supervisors' Rankings **	Teachers Rankings
1 Visit classroom teachers	1	1
2 Write professional articles for publication	58	58
3 Maintain a system encouraging teachers to offer suggestions for the improvement of the educational program of the school	15	14
4 Encourage teachers to address professional groups outside their own school system	57	58
5 Survey the school plant and equipment	47	18
6 Develop and maintain or help to develop and maintain cumulative records of pupils	27	25
7 Recommend teachers for bonus or salary increases	67	65
8 Plan and follow up the intervisitation of teachers	50	18
9 Plan conduct and follow up the results of individual conferences	1	2
10 Study the interests abilities talents, experience and training of staff supervised	10	7

** The rankings of the supervisors are taken from Engelhardt Zeigel and Billett *op cit* pp 155 157 See also National Survey of Secondary Education Monograph No 11 which is the United States Office of Education Bulletin No 17 1932 (Washington D C Government Printing Office 1933)

The writers have examined a rather large number of such studies and find that they differ greatly in their findings, depending upon the type of persons from whom responses were solicited the experiences of the persons responding with reference to the different techniques, the adequacy of the sample, and similar matters The effectiveness of a given technique probably depends upon its appropriateness for the purpose used and the skill with which it is employed Techniques are not good or bad in general, as has so frequently been pointed out in this volume, but good or bad for different purposes, persons, and conditions

A classification of the improvement techniques discussed in this chapter Where there are many different items to be discussed as there are in the materials to follow, it is customary to seek some type of grouping The building of categories is never, however, an easy matter In this case it seemed particularly difficult because of the variety of meanings attached to the various labels applied to the improvement devices There are many points of view from which improvement devices may be classified

one is the degree to which they provide for individual differences, as in individual and group techniques, *another*, the degree of participation provided—the learner's rôle in some situations is quite passive, whereas in others it may be quite active *Yet another* is the learner's approach to learning Three categories are sometimes set up here somewhat as follows (1) learning by doing, (2) observational learning, and (3) verbal learning Different schemes of classification tend to emphasize various aspects of the improvement program, each has its advantages and disadvantages We have chosen to combine here all three above-named schemes of classification The techniques are first classified into those that ordinarily imply group participation of one sort or another, and secondly into those ordinarily carried forward on an individual basis These two groups of techniques are further classified into *doing* techniques, *observational* techniques, and *verbal* techniques In the first scheme of classification, group techniques are taken to mean any techniques involving the cooperative efforts of any three or more persons Groups may be of the small working committee type, or of the large audience type In the latter scheme of classification, *doing* is used in the sense of direct engagement in the activity concerned as contrasted with looking on while some one else engages in it, or as contrasted with reading and conversing about the activity *Doing* is conceived to take place on two levels (1) on the level of physical manipulation, and (2) on the level of mental manipulation According to this conception of doing, preparing a study guide when the purpose is to learn how to prepare study guides, is as much a form of learning by doing as is learning to teach by teaching or learning to swim by swimming In attempting to build up a scheme of classification such as the foregoing the goals sought must be considered as well as the character of the activity itself Although our major scheme of classification is according to the size of the participating group and the learner's approach to learning we shall attempt not to forget that improvement devices differ also in the degree of participation provided individuals

CLASSIFICATION OF IMPROVEMENT DEVICES

I *Group Devices*
- A Doing Techniques
  - 1 Workshops
  - 2 Committees
- B Verbal Techniques
  - 1 Staff meetings
  - 2 Group counseling
  - 3 Course work
  - 4 Documentary aids
  - 5 Directed reading
- C Observational Techniques
  - 1 Directed observation
  - 2 Field trips
  - 3 Travel seminars
  - 4 Audio visual aids

II *Individual Devices*
- A Doing Techniques
  - 1 Participation in the total teaching act
  - 2 Individual problem solving
- B Verbal Techniques
  - 1 Individual conferences
  - 2 Adjustment counseling
- C Observational Techniques
  - 1 Directed observation
  - 2 Inter visitation

No hard and fast classification seems possible It is always possible to employ different combinations of learning by doing observation, and verbal communciation in promoting improvement programs Although some scheme of grouping improvement devices seems desirable, no hard and fast scheme of classification seems possible The workshop is a splendid example of the difficulties involved in categorizing improvement techniques It appears to be primarily a group technique It has, also, many individualizing aspects, and relies upon a variety of means, such as, talking, listening, reading, writing, and doing It has been classified here as a group technique because of its emphasis upon cooperative and democratic methods of doing things It has been classified as a doing technique because of its great emphasis upon learning by direct contact with the thing to be learned Doing techniques in the field of teacher education are however, of two sorts (1) those involving participation in the total teaching act and (2) those providing participation in various sorts of preparatory activities The workshop provides opportunities to do in the latter sense Directed reading has—to cite another example—been classified as a group device in spite of the fact that at the adult level it is ordinarily pursued on an individual basis In another sense, however, it is not an individualized device at all since books in general, by their very nature, cannot discuss the problems of individuals in particular situations but rather those common to many persons Their hope is to serve a large audience by discussing common problems and principles The average teachers' meeting to cite a final example, is a group device and ordinarily relies upon verbal communication as its chief means of stimulation and guidance With the increased use of audio visual aids, teachers' meetings may become however more visual than verbal These difficulties of rigorous classification have not been overlooked in what is to follow We shall start first by talking about workshops

SECTION 1

GROUP DEVICES EMPHASIZING LEARNING BY DOING

The educational workshop One of the large group approaches to improvement, very much in vogue at present, is the educational workshop Much has been written of this subject in recent years, and hundreds

of workshops have been held in different parts of the country Although workshops mean different things to different people, the term seems to imply an assemblage of persons working with expert assistance concurrently and cooperatively on common needs Tyler describes the workshop as follows [2]

The workshop is an arrangement whereby a teacher or a school officer may work intensely on a problem which he brings from his own school and may obtain the assistance of staff members of the teacher training institution Typically a summer workshop runs for about six weeks and includes staff members from various fields of study particularly from the fields of the curriculum, student personnel evaluation, and administration Workshop participants interested in similar problems form into small groups and they also work individually with the guidance of various faculty members who give help on the particular difficulties that they face

Heaton lists seven essential characteristics of the workshop [3]

1 The participant is given an opportunity to make an intensive study of an interest which has arisen out of his experience as a teacher
2 The participant shares in planning a program of individual and group activities designed to meet his needs and those of his fellow workers
3 The participant is provided with easy access to the services of various staff members representing a variety of kinds of assistance
4 Formal and informal association with other participants of varied backgrounds contributes to the participant's thinking on his specific problem, broadens his general professional orientation and provides opportunity for experiences in cooperative activity
5 An effort is made to interest the participant in the whole child the whole school, and the whole community
6 The participant's total experience as he studies a specific interest or problem tends to prepare him for the solution of other professional problems in the future
7 Since workshops have been concerned not only with the professional problems of the teacher but with his life as an individual, efforts have been made to afford opportunities for balanced living

Mitchell reports the following criteria for choosing projects for the Fayette County (Alabama) workshop The teachers in one of their early meetings decided that the projects to be undertaken would be [4]

1 Those which will lead to teacher growth in the recognition of basic social issues in community problems
2 Those which will lead to teacher growth in the recognition of the effect of basic social problems on wholesome child development
3 Those which lead teachers to see the implication of basic social problems for the school program

[2] Ralph W Tyler Trends in the Preparation of Teachers' *School Review* Vol 61 (April 1943) pp 207 212 Published by The University of Chicago Press

[3] Kenneth L Heaton and others *Professional Education for Experienced Teachers The Program of the Summer Workshop* (Chicago, University of Chicago Press 1940) pp 21 41

[4] Morris R Mitchell, The Fayette No Cost No Credit Workshop ' *Peabody Journal of Education,* Vol 19 (July 1941) pp 412 417

4 Those which will acquaint the teachers with the work of existing social and governmental agencies and their responsibility toward these agencies
5 Those which will lead teachers to an increasing awareness of child and community needs and the relationship between them
6 Those which will help teachers to develop the initiative for planning and executing a school program that will meet child and community needs
7 Those for which professional leadership is available
8 Those best suited to the individual needs, abilities, and interests of teachers
9 Those corresponding to the ones suggested for the elementary school program in the new course of study namely, those connected with the basic social program, recreational and creative activities, and the development of skills
10 Those for which materials can be secured with the limited funds available
11 Those which will stimulate long time study and effort yet which can be carried to a more or less successful conclusion in the limited time
12 Those which will increase the teacher's skill in the use of familiar materials, such as wood, clay, paint, books etc
13 Those which will familiarize the teachers with new experiences such as those connected with meal planning and preparation and serving of certain foods by elementary school children

Advantages claimed for the workshop The workshop is based upon well known principles of learning such as readiness, a felt need and democratic procedures, and it employs new ways of working such as group methods, individual problems, resource groups, expert leadership community contacts, and writing Among the advantages claimed for the workshop are [6]

1 It is concerned with the felt needs and problems of participants
2 The participant develops individually socially and emotionally as well as professionally
3 It provides an opportunity for participants to make a constructive contribution on the educational frontier
4 It provides a means of supplying more practical assistance to field workers
5 It provides easy access to competent assistance
6 It provides a democratic large group-individual attack upon educational problems
7 It furnishes a stimulus to continued professional growth in service
8 The materials and ideas developed in workshops are useful in school situations

Naturally, some workshops will be better than others, depending upon the leadership and the faithfulness with which the principles of learning here stated and elsewhere enumerated in this chapter and volume are adhered to As an improvement device the workshop has much to be said for it

[5] Earl C Kelley, Why All This Talk about Workshops?' *Educational Leadership* Vol 2 (February, 1945) pp 200 204

[6] R H Erwine and W G Fordyce The Workshop and In Service Teacher Training" *Educational Research Bulletin*, Vol 22 (March 1945), pp 59 62

Criteria for the evaluating of effectiveness of the workshop In 1943 the Department of Education of Kentucky in cooperation with the Council on Public Higher Education, the University of Kentucky, the state teachers colleges, the private colleges, and city and county superintendents, set up an emergency program for the education of teachers in service An important part of this program was the educational workshop To direct the efforts of those attempting to set up workshops, the following questions were proposed within which criteria are implied Direct statement of the criteria would have been advantageous[7]

1 How have these programs been organized?
2 What has been the center of action in each program?
3 To what extent have these programs attempted to meet *this year's needs* of teachers?
4 To what extent have these programs attempted to tie the school activities with living in the community?
5 To what extent have these programs tended to make potentially poor teachers into potentially good teachers?
6 What has been gained by the staffs of these programs which may help them in understanding the problems of the teacher in actual situations?
7 To what extent has the experience in these programs given college staffs a more intimate understanding of the problems of living as they are faced day by day in the communities?
8 To what extent have these programs been able to get a better tie up between the day to day program in the school and the day-to day problems of living in the community?
9 Did the workshop offer experiences
   a Which would give the teachers a point of view of a community centered school or a school of social action whose function is to improve living conditions and to improve the quality of life in the community?
   b In relating instructional materials in the skills of reading and arithmetic to life in the community?
   c Which would make teachers sensitive to the needs of the children and adults in the community?
   d In building a total program in all areas of living by integrating the courses of study with real problems in the community life rather than experience only in developing skills and presenting information?
   e In evaluating child growth above mere achievement of information?
10 Have these programs revealed a county or community which is willing or anxious to cooperate with the college in tying up the school program with community living?

A description of a workshop in operation A visitor who had never seen a workshop in operation visited the curriculum workshop at the University of Maine during the summer of 1944 and aided in developing the following description

The visitor entered during the morning session and found 172 Maine teachers supervisors, superintendents, and normal school staff members scattered at long

[7] 'Cooperation Brings Results Report from Kentucky), *Educational Leadership* Vol 3 (October, 1945), pp 7 9

tables working as individuals or in groups large and small Knots of people surrounded each of the ten staff members other groups were engaged in animated discussion under their own leadership Cases of books along the wall were being used, exhibits upon the one hundred foot bulletin board were under analysis, new exhibits were under production in the art workshop Teachers were trying out finger paints making puppets modeling in clay, learning at first hand the difficulties of working with the same materials which the children use A film on the development of reading skill was being shown in the little theater directly across the corridor Material from filing cases containing curriculum exhibits from all over the United States was being checked in and out by librarians Groups broke up, reformed changed membership individuals moved about, materials of all sorts were being examined discussed exchanged Production of new materials was clearly under way in some places The noise of conversation and movement was absorbed by the high domed ceiling of the gymnasium which housed the workshop The scene was one of movement, bustle, freedom, many varied activities were under way at the same time The uninitiated visitor accustomed to adult students seated in rows listening quietly, answering questions under the direction of a teacher or working individually in the library on identical assignments might be puzzled amazed, even somewhat shocked—until he developed insight into what was really going on!

Educational committee work It is common practice to turn over the responsibility for various educational projects to committees of school officials of one sort or another These committees ordinarily have a definite goal such as making a curriculum, choosing educational aids and materials, developing criteria for evaluating various means, processes, and outcomes, conducting community surveys, making follow-up studies of graduates, finding the problems of pupils, teachers, and the like They not only achieve their goal but they also serve as a means for improving the school personnel in service The emphasis here is upon the device rather than the uses to which it may be put Accordingly, in spite of the fact that almost every one has had committee experience the writers have chosen to offer certain comments that we hope may be helpful

Some suggestions for the improvement of educational committee work To get good results, the membership must be well chosen, the problem one of concern to the participants, and the leadership, good The following summary may help

1 Center the committee work around a task clearly defined and deemed of importance by the group
2 Choose the membership of the committee with reference to the specific problem being attacked Abilities and backgrounds very useful on one committee may not be so useful on another
3 Make the committee small enough to allow a free exchange of ideas and large enough to represent varying points of view and to secure needed specialized assistance
4 Select the leadership with special reference to qualifications for the task (Principles of leadership were elaborated in Chapters II and III The following points are merely for reemphasis)
   a Provide for the democratic processes of free discussion trial summaries, and complete voicing of minority views

b Recognize leadership within the group wherever it arises
c Provide conditions which release creative activity and secure participation

5 To facilitate operations, prepare an agenda carefully provide necessary resource materials and good though informal organization
6 Make the deliberations of the committee result in production of some observable type There must be a tangible product useful in the situation, the continuing effect of which can be observed
7 Make the form of the produced materials clear and definite enough to be easily useful to all concerned

Activities providing participation opportunities for members of the school personnel There is a very definite trend in recent years toward more participation on the part of the school personnel in the study of educational problems This has been true everywhere Some of the areas in which wider participation has been provided are those of discovering and defining educational problems, of helping with community projects, of formulating instructional plans and policies, of curriculum making, of choosing instructional materials, and of developing educational criteria of one sort or another These seem important enough to warrant special comment

Participation in discovering and defining educational problems Various committees of the school personnel have been employed in discovering and defining the problems of pupils They have done good work and have grown as the result of their efforts in this respect There are, however, many other educational problems with which the school personnel might render valuable service and might grow in the process of helping if given an opportunity to do so We have in mind here participation in discovering the problems of teachers and other members of the school personnel Some of these problems arise out of environmental factors and some out of the personal characteristics of the individual concerned, as pointed out in the previous chapter Some also arise out of staff relationships and administrative practices Much real assistance can be provided the administration by wider participation on the part of the school personnel in discovering and defining such problems, and the personnel will be improved by the added experience and the added responsibility

Participation in community projects The school personnel has become too greatly divorced from the community There are many community organizations and activities in which the school personnel might associate themselves such as salvage campaigns, Red Cross, camps, gardens, clean-up campaigns, drives of one sort or another, councils, betterment associations, health programs, Boy Scouts, Girl Reserves, YMCA, YWCA, conservation activities, landscaping, recreation parks, playgrounds, art centers, adult education, forums, work projects, canning projects, nurseries, libraries, and better housing projects School people are busy, but probably not any more so than other workers in the community They

should as a group plan to assist with community activities as much as they can and learn in doing so If their school responsibilities are too heavy to permit participation, the duties should be lightened It is the judgment of the writers that the schools as a matter of long time policy cannot afford to be divorced from these community-wide activities and cooperative improvement programs

Participation in the formulation of instructional plans and policies One means of learning by doing which is rapidly growing in importance is that of teacher pupil and parent participation in the formulation of instructional plans and policies The development is the result of growing emphasis upon democracy in school administration The cooperative formulation of instructional plans and policies should create a better attitude on the part of the school personnel toward the administration and school policies These ends are outcomes that should be highly valued by all concerned Though administrative and supervisory officials sometimes object to the time consumed by such an approach and the interference interposed upon the wishes of the administration, the time spent in advising with members of the school staff will ordinarily be found most valuable both from the point of view of the final product and the attitude of the persons concerned

Participation in curriculum development One of the most effective areas for participation by the entire staff is that of curriculum development, which as a constant on-going activity is in fact practically equivalent to the best in supervision Dozens of state and city programs testify to the value of this form of participation Very great progress has been made in recent years, including the development of new means by which teachers, pupils parents, and other adult members of the community may participate more fully in this important activity It has progressed to the point where one now seldom hears of important curriculum projects that do not make definite provision for extensive participation on the part of school personnel and members of the community Lack of space prohibits the description of the many means employed to secure more adequate participation in curriculum making The committee plan is the one most generally used Numerous illustrations of the means ordinarily employed in securing teacher participation in these important school activities can be found in the literature of education Some illustrative materials will also be found in Chapters III, IX, and XIII

Participation in the choice of instructional materials Still another form of participation, good for the school personnel, is participation in the choice of instructional materials textbooks, supplies, and equipment Needless to say, the choice of instructional material is vital in securing effective instruction Such textbooks, supplies, and equipment as are used must be purchased with their purpose in mind In large city systems the actual routine of buying, housing and distributing materials may

very well be handled through a central purchasing and distributing center, but whatever the arrangement, it should be made clear to all concerned that the choice of materials is of instructional concern to be passed upon by instructional officials ordinarily with the assistance of appropriate committees created for this purpose A new curriculum with out-of-date textbooks or supplies would seem out of place and unnecessary in a well-integrated service in these areas [8]

Participation in the development of the criteria by which the educational product and its antecedents may be evaluated Reference has already been made in an earlier chapter to the use of especially developed criteria for the study and improvement of teaching Through such criteria teachers may discover their growth needs Criteria may also be applied to many other aspects of the program of the school, such as in defining pupil needs, in choosing learning experiences, and in determining the principles of sound personnel administration To give the school personnel who use these criteria an opportunity to participate in their construction is to insure a better attitude toward them, a better understanding of their content, and a more intelligent use of them in the improvement of educational product The careful review of the literature of education scientific and otherwise, necessary for the construction and constant revision of such criteria will provide a convenient device for self improvement and growth in service Aside from this fact, it should also be pointed out that one of the frequent causes for misunderstandings between the superintendent and other members of the school staff is disagreement as to what constitutes effectiveness in various areas of responsibility If agreement could be reached upon the criteria one source of misunderstanding would be removed

SECTION 2

GROUP TECHNIQUES RELYING CHIEFLY UPON VERBAL MEANS OF STIMULATION AND GUIDANCE

The type of techniques to be considered next The common element running through the techniques to be discussed next is that first of all they are group techniques, and secondly techniques that rely chiefly upon verbal means of stimulation and guidance The devices that we have included in this group are teachers' meetings, course work for teachers, and group counseling In treating these devices as a group we are not unmindful of the fact that they have many diverse features Some too, will employ doing and observational types of stimulation and guidance in varying amounts We start with a consideration of teachers' meetings of various sorts

[8] A S Barr and W H Burton *The Supervision of Instruction* (New York D Appleton Century Company, Inc, 1926) pp 255 292 See also Chapters X and XIV of the present volume

Teachers' meetings Teachers meetings are of many kinds

1 Teachers conventions
2 Teachers institutes
3 School faculty meetings
4 Departmental meetings
5 Grade meetings
6 Small group conferences etc

Only brief reference can be made here to the many types of meetings employed in improvement programs The teachers' convention is a complex organization serving many purposes educational and otherwise it supplies a medium for inspiration, cultural training technical assistance and the exchange of ideas There can be little doubt concerning its value *where there is adequate planning and leadership*

Another device of long standing frequently employed for improvement purposes is the teachers' institute There are three fairly common types (1) the special one week and two weeks institutes provided by teacher training institutions and devoted to selected problems, (2) the one-day or two-days county or city institute held just prior to the opening of the school year and (3) the one-day institute held by various school officials at different times throughout the school year Though the institute has now fallen into bad repute, *with capable leadership* it is still a valuable instrument for the improvement of educational practice The new work-type institute with its demonstrations, clinics, and visual aids is proving an important source of professional stimulation and guidance It has an interesting history and many years of usefulness to its credit

Another improvement device long employed for various purposes is the general faculty meeting This device has been very commonly associated with the training of teachers in service Whether it is effective or not depends upon how it is employed in different learning and teaching situations The tendency is toward the introduction of a greater variety of appeals such as the use of audio-visual aids, skilled technical and non technical lay speakers, and panel discussions Routine announcement, so long the bane of teachers meetings, are now ordinarily reduced to written form Teachers meetings have long provided the standard medium for the exchange of professional ideas The intra school and city departmental meetings may offer a valuable device for developing sequence and unity in the offerings in the different areas of learning or for discussing special methods and problems relative to the several areas of specialization in the average school system In smaller schools departmental meetings may not be at all feasible (since there may be too few teachers) but where there are several teachers in a given field of instruction—as in mathematics or languages—with representatives from different grade levels, much good can be accomplished Grade meetings are useful in bringing together teachers of like interests at the same grade levels Intergrade and divisional meetings can be used to bring together teachers

of related grade levels kindergarten, primary-grade, intermediate-grade, junior high-school, and so forth

The small group conference may be employed wherever one finds teachers of like needs, interests and problems The advantages of the small group conference lie in its economy of time, its recognition of individual differences, and its informal proximity to the teachers themselves It probably deserves much wider use in the improvement program than it now receives

Panel discussions There are many different ways of conducting meetings such as those listed above Reports may be given by individual members of the group, an outsider may be invited to address the group, a specialist in some aspects of the school's program may talk, or there may be general group discussion A technique that has come into very general use in recent years is that of the panel discussion If properly managed this type of discussion may induce widespread participation on the part of all concerned The elements in a panel discussion are a chairman a panel of three to ten members, an audience and a worthwhile topic An important factor in the success of a panel is the chairman State Superintendent Lester K Ade lists the duties of the chairman as follows [9]

1 To stimulate contributions
2 To repeat or reformulate contributions enough to give the audience and panel time to consider for themselves the point made
3 To supply illustrations when a panel member states a principle or to generalize when a panel member gives specific illustrations This also provides time and opportunity for understanding
4 To give recognition by name systematically but subtly for each contribution made
5 To emphasize aspects of contributions significant for the pattern or design which develop The chairman may lead by asking questions and emphasizing but should not dominate or direct the discussion to a specific and predetermined outcome
6 To interpret the interrelations of diverse contributions both to each other and to the general pattern
7 To summarize and to integrate from time to time and at the close of the discussion
8 To decide when the contributions of the panel have been sufficiently clarified to include the audience in the discussion

The chairman should be well versed in the topic under discussion should have an open mind a sense of humor, resourcefulness and should be tolerant of conflicting ideas While stimulating the discussion he should avoid and prevent emotional tensions as far as possible He should offer very few ideas himself confining his contributions to emphasizing the significant contributions of others and to correlating the elements of the discussion to the main topic In the *final summary he has the opportunity to integrate the entire discussion*

It is suggested that panel members should be ready thinkers, facile speakers interested and competent in the topic under discussion and if possible repre-

[9] Lester K Ade *In Service Education of Teachers* Bulletin No 155 (Harrisburg Pa State Department of Public Instruction 1939) pp 20 21

sentative of a wide variety of viewpoints It is important that the members of the panel understand the difference between engaging in discussion and making a succession of addresses Five minutes should ordinarily, be too long for any one person to speak at one time

For further discussion of the prerequisites to effective leadership the reader is referred to Chapter III It is customary to follow the panel discussion by participation on the part of the audience To get good results the meeting must be carefully planned

Some suggestions for making group meetings effective A number of practices can be employed in the conduct of group meetings to make them more effective A few of the more important of these are briefly described below

1 Group meetings should be called for clearly recognized purposes Teachers' meetings and other group conferences should not be ends in themselves but antecedent to the satisfaction of some clearly recognized need The planning of group conferences whether for all or for some part of the teaching corps will ordinarily not take place until the needs for such conferences have been clearly ascertained The blunderbuss type of conference has gradually given way in recent years to conferences for specific purposes

2 Group conferences should be carefully planned both as to content and sequence That the individual meetings should be carefully planned scarcely needs mentioning considering the time consumed and their importance Frequently more than a single meeting is needed to accomplish the purpose of such meetings Where more than one meeting is necessary to accomplish the purposes of the group conference the meetings will ordinarily be arranged in some sequence

3 A favorable attitude should be sought in the participants Not infrequently teachers and other school officials are doubtful about the worthwhileness of group meetings Such judgment about the value of group conferences arises out of past experiences with the conventional teachers meeting One of the best ways to secure a better attitude is to make these meetings of real value to the participants To accomplish this end the purposes served will have to be those considered worth while by those who participate The administrative personnel may sense needs not at all sensed by other participants To accomplish its goal small group conferences may have to be used much more frequently than the faculty meeting

4 The topic or series of topics to be discussed should deal with live issues with which the group as a whole is vitally concerned A common mistake made in group meetings of various sorts lies in the choice of topics of limited interest The topics chosen for discussion should be those of interest to at least the majority of the group assembled

5 Consult the group concerned in advance about speakers, topics, and modes of procedure Wider participation on the part of the school personnel in planning and administering group conferences will ordinarily insure better results

6 Effective leadership should be supplied at all times The best leaders are those who know their subjects and have the gift of clear exposition Many persons of undoubted scholarship lack this gift of popular presentation and are unable to make their presentations intelligible and in

teresting to those concerned Then too there are those who talk fluently but say nothing In general, leadership chosen from the group will in sure local emphasis and practical application An occasional outside speaker of known ability may be employed with profit to supplement local efforts

7 A mimeographed brief should be mailed out in advance to those who will be present The brief may consist of an outline of what is to be done, a set of theses to be defended by various leaders chosen for the purpose, a lesson plan for demonstration teaching or a set of standards for judging the teaching If the audience is to make a thoughtful reaction to the subject under discussion an outline of some sort would appear necessary

8 Provide for wide participation both in presenting illustrative materials and in discussion The group-discussion the panel discussion or lecture discussion types of faculty meetings are now generally preferred to the formal lecture type In general, school people are more favorably disposed to the improvement programs when they can be brought to participate in them and share in their successes and failures

9 Discussions should be carefully directed Meetings must not degenerate into pointless boring discussion or into a desultory talk fest Neither the speaker on the platform nor a member of the audience has a right to make long digressions or raise irrelevant questions This fault is one very commonly complained of by teachers There should be a time limit on the meeting the discussion should be kept moving and a summary should be made The skilful management of group discussion involves the ability to get participation in the discussion without too much discussion from any one person the ability to bring to light different aspects different shades of meaning and conflicting views of the subject under discussion with harmony and consideration for all the ability to state the problem clearly to keep the various speakers on the subject to keep the discussion moving and to summarize from time to time as seems necessary Many otherwise promising group conferences are spoiled by ineffective leadership

10 Seek the reactions of the participants at all times It is sometimes worth while to ask for specific suggestions comments and criticisms of the work in progress These opinions may be gathered by conference questionnaires or written reports In the case of written reports they may include reasons for approving or disapproving methods of conducting conferences the ideas presented or plans for future action Wherever possible specific instances of good and poor procedures should be cited and definite suggestions for future improvements should be made

11 Meetings should not be used for routine administrative purposes This point serves double emphasis Some meetings can be characterized as mere 'guard mounts for the reception of general orders Superintendents supervisors and principals manifest a crude disregard for teachers rights as well as a lack of appreciation of the time value when they summon a great number of people together merely to hand them copies of regulations and lists of orders or to discuss issues of concern only to a few of those present The mimeograph will do many of these services much more expeditiously

12 The meeting should end with a summary plus a look to the future, it should not merely come to an end The problem may be restated, progress already made outlined, and important discussion for the next meeting should be stated Many supervisors follow the practice of supplying all participants in group conferences with a written summary of the dis

cussion Such summaries serve as an official record of events, a summary of important facts and principles, and as a guide to future discussion

The most frequently noted shortcomings of larger group meetings are (1) the topics discussed may not be those considered by participants most important, (2) there may be inadequate provision for individual differences in recognizing the needs of participants and providing treatment, (3) the treatment accorded to topics chosen for discussion may be general, abstract and theoretical, and (4) there may be inadequate leadership, poor planning, inexpert advice, and inadequate provision for teacher participation When these shortcomings of group method are avoided it may become a useful device for helping the school personnel and promoting the improvement program

Choosing an appropriate time for group meetings A difficult problem will probably arise in the choice of a time for group meetings In attempts to get a satisfactory solution to this problem many different arrangements have been tried out early morning meetings, noon luncheon meetings after school meetings, evening meetings and Saturday morning meetings No time seems to be entirely satisfactory Holding meetings in the late afternoon is a very common practice but this is a time when school people are likely to be fatigued and not too alert Many teachers prefer to use this time too for individualized work with pupils and in preparing for the next day's work Similar difficulties arise from evening meetings, with the added disadvantage that some persons rather strenuously object to further work in the evening Some schools provide for staff meetings on school time One of the real difficulties with this arrangement is that while it is in general satisfactory to the staff, time is taken from the pupils Probably a very much more promising development has been the attempt to make staff meetings an integral part of the day's program The free time for meetings is secured by the careful planning of student activities auditorium programs and the like The modern curriculum presupposes much group planning Probably the best way to make such planning possible is to make it an integral part of the day's regular activities Another possibility if teachers agree, is Saturday morning, but many teachers object since they have customarily had this extra period for their own use They may be reluctant to give it up Many persons believe that much would be gained if a portion of the Saturday morning period were employed for this purpose Whatever the merits of the various plans the time chosen for group meetings should be acceptable to the majority of those participating and should be as convenient as possible

Other problems in the planning of group meetings Naturally the place will be a central one and suitable to the purposes of the meeting Frequently a room with chairs and tables is more desirable than conventional nailed-to-the-floor seats In general, meetings should be held as needed and not according to schedule, unless there are a number of such

meetings Then it would appear best to set a definite time and place In many instances, supervisors, principals, and superintendents assume that the regular weekly, bi weekly, or monthly teachers meeting is a foregone conclusion Where there are to be a number of such meetings the establishment of a definite time and place for them seems to ease the situation somewhat These and other administrative problems will need to be carefully considered in providing satisfactory conditions for the use of group meetings as a means of training teachers in service

Before leaving the discussion of teachers' meetings and other group devices for promoting improvement programs we emphasize again that the trend in supervision is away from excessive dictation The trend is rather, in the direction of cooperative problem solving where teachers, pupils, and parents all work together There must first be a program or something to be done Teachers' meetings bulletins and the many other devices here discussed will follow where there is a need for them A few pages back a description of workshops was given The workshop is a very valuable leadership device The point we wish to make here is that group meetings and individual conferences are important subsidiary techniques in many phases of the improvement program They can of course, be misused as may any tool Careful attention to the principles of effective leadership discussed earlier in the preceding chapter should help in the choice and use of supervisory techniques Attendance at teachers' meetings is increasingly on a voluntary basis

The planning of school-administered forums It has been repeatedly emphasized in this volume that teachers should participate in community wide activities and projects in order that the community may have the assistance of such leadership as the school can supply and that the schools and teachers may not be too greatly divorced from the people and the communities which they attempt to serve It has also been repeatedly emphasized in this volume that teachers pupils parents and administrators should all share in educational planning in order that the schools may have the assistance of all and that parents might be better informed about the schools It was emphasized at the beginning of this chapter that teachers may learn while participating in large school and community improvement programs The school-community forums present another instrument for realizing many of these values A number of suggestions on how to conduct them successfully follow

Starting a forum involves the cooperative efforts of many persons in and out of school civic leaders, parents, pupils, and teachers The basic requirements for a balanced program are

A Physical Features

1 A population large enough to meet the expense of good management
2 An area small enough to avoid unusual expenses for transportation of forum leaders
3 Good meeting places of various sizes in all sections of the district

B Administration
  1 A director, part time or full time depending upon the factors previously mentioned
  2 Secretarial help amount depending upon the same factors
C Period of Operation
  1 About 30 to 35 weeks per year
D Speakers and Leaders for the Different Type of Forums
  1 City or county wide forums (more accurately "forum district wide")
  2 Sectional forums (organized in a circuit so that a forum leader serving for a week or two may reach all districts)
  3 Neighborhood forums
E Inexpensive Additions
  1 Small study-discussion groups usually led by volunteers meeting in homes, schools or other convenient places
  2 Institutes planned for vacation periods organized and participated in by the staff
  3 Leadership training courses conducted by forum leaders to develop abilities in planning and leading group discussions and meetings of various kinds
  4 General counseling services on techniques provided by the forum director and the leaders for forums discussion groups and public meetings under various non public auspices

The main methods for conducting forum discussions are

1 Informal group discussion for groups of 10 to 25 led by one of the group
2 Committee or conference discussion for small groups of persons who must reach a decision on a matter of mutual concern
3 Panel discussion for large or small groups the subject is presented and discussed by qualified students usually having different opinions participation of audience follows panel discussion
4 Lecture forum for audiences of different sizes based on the presentation of a qualified speaker who may or may not guide discussion sometimes only questions are permitted or encouraged Panels may be used to supplement the speaker
5 Symposium for audiences of different sizes based on the expert presentation of different phases of the subject by three or more persons
6 Debate for audiences of different sizes based upon presentation by two speakers of opposite points of view There are many ways of organizing the time and making use of the skills of the speakers

The choice of method will depend upon the purpose the subject and the situation

Group counseling Another group technique somewhat different, at least in purpose, from that of the teachers meeting is that designated by Herrick and Corey as group counseling In the conventional type of group work the individual may gain insight into what is to be done or how, but in group counseling the leader exploits the opportunities inherent in the group-work situation to help individuals achieve better personal and social adjustment as well as to know what to do or how Herrick and Corey state the conditions for group counseling as follows [10]

[10] Virgil F Herrick and Stephen M Corey Group Counseling with Teachers' *Educational Administration and Supervision* Vol 30 (September 1944) pp 321 330

A teacher's regard for his own professional worth is largely dependent on the recognition given by the members of the intimate group[11] within which he works. The pressures of this intimate group and of the other groups in which he participates determines in part the values he seeks and consequently affect his success not only as a person but also as a teacher of children. The group activity, in other words, constitutes the matrix within which individual difficulties are defined and from which is derived the therapy which ameliorates them. The responsibility of a counselor is to take advantage of the opportunities inherent in group work which aid the teacher to gain acceptance from and participate effectively in the activities of the group.

Group counseling complements individual counseling in that it both relates the individual to his group activities and provides opportunities for counseling and therapy to take place simultaneously. Because the teacher's success in group activities indicates in part his personality development, his continued participation in the group is essential both to improved understanding of himself and to adjustment to the group. Unless either the teacher or the group is completely withdrawn or inflexible retreat from the group creates a serious obstacle to adequate adjustment. Certainly techniques of group work are not developed *in absentia*.

Another sense in which group counseling complements individual counseling is in the reduction of the authoritarian element. In individual counseling under usual conditions the counselee almost always becomes quite dependent upon his adviser for help in defining his problems and in determining courses of action which might lead to their solution. This authoritarian hazard is appreciably less in group counseling. Here the counselor is more likely to be regarded as a peer and not one who is omniscient. The authoritarian element is present but it is the group that becomes the authority and determiner of values rather than either the individual himself or the counselor.

As a result of successful group counseling the individual modifies his behavior and attitudes so that he will be accepted in the group and be able to make a better contribution to its work.

Those who are concerned with group guidance must eventually see to it that

1. A 'permissive group environment' is developed.
2. Opportunities are provided for group relations which lead to acceptance by the group and to an understanding of individual difficulties.
3. A genuine interest is aroused which affords the individual some group recognition and extends his cultural and professional horizons.
4. A sense of worth and social responsibility are developed in the individual.

Two types of persons should profit: the overly aggressive, egocentric individual and the timid, hypersensitive person who tends to withdraw from social contact.

Course work for teachers in service. Few persons who have not given the problem special consideration will realize the extent to which teacher training institutions have reconstructed their offerings for the training of

[11] An intimate group here is used as connotating something more than casual or momentary relationship. Such a group is characterized by cooperative endeavor engaged in to achieve certain common ends. See James C. Partrick, *The Role of Intimate Groups in the Personality Development of Selected College Men*, School of Research Studies No. 6, Social Science Series No. 9 (Los Angeles, Calif.: The University of Southern California Press, 1935), p. 5.

teachers and other staff members in service Through summer-school courses, extension courses, correspondence courses, late afternoon and evening classes special conferences, clinics, institutes, and service bureaus, many educational institutions are now offering to the school personnel numerous opportunities for continued growth in service Though this work may lack the immediate practical value of that offered by local leadership it is invaluable both as a source of ideas and as an encouragement to further effort A criticism frequently heard of such offerings is that they are remote, abstract and theoretical The very remoteness and detachment of some of these discussions are not, however, without value There is a trend, too toward more laboratory work and concrete experiences The addition of problems courses and workshops has also increased the practical value of course work which when properly organized, may supply very much needed assistance for teachers

Some advantages and shortcomings claimed for course work Like other means of stimulating growth among the personnel, course work possesses certain very definite advantages and disadvantages Among the former frequently claimed for this means of helping the personnel are

1 It provides expert assistance where expert assistance is needed (The college and university teacher is usually one that has achieved a certain degree of experiness in his chosen field of specialization)
2 It provides new and better library services than those ordinarily available to the field worker
3 It provides an opportunity to meet and exchange ideas with persons from other school systems

The most frequently voiced disadvantages of this plan are

1 The problems and aspects of the subject presented in course work are frequently not those sensed by teachers as most pressing and significant
2 Instructors seem frequently not to be able to bridge the gap between principles and techniques General theory courses are sometimes not satisfactory because of their superficiality and neglect of the appropriateness aspects of techniques The two approaches are ordinarily not well integrated
3 Course work is frequently formal and academic

These criticisms may mean many different things to different people, but probably all they do mean is merely that the problems discussed in such courses are not those ordinarily sensed by teachers as important and that the discussions fail to supply teachers with concrete assistance with their problems All in all the situation has become quite unsatisfactory to many teachers

SECTION 7

DOCUMENTARY AID ADDRESSED TO THE COMMON PROBLEMS OF THE SCHOOL PERSONNEL

Bulletins, guides and printed aids There are many sorts of locally distributed state and national bulletins, guides, and printed aids

available to the school personnel They may be prepared, printed and distributed

1 By privately owned commercial agencies (such as the very large amount of materials distributed by travel agencies chambers of commerce life insurance companies and large industrial concerns)
2 By semi public professional groups (such as the bulletin materials from labor unions, cooperatives and teachers' associations local state, and national)
3 By educational foundations (such as the very large number of monographs reporting the results of foundation supported projects in many areas of human development and education)
4 By various local state, and national governmental units (such as the many excellent bulletins and special aids published by the United States Office of Education, state departments of education and local governmental units)

They cover a large variety of topics and subject matter, professional and nonprofessional in character They may be roughly classified as follows

1 Source Materials
   a Especially prepared resource units as in curriculum
   b Free and purchasable leaflets bulletins and booklets on a miscellany of social political personal professional and economic topics
2 Helps with Special Teaching Problems Such as Helps
   a With child development problems
   b With pupil diagnosis and remediation
   c With learning difficulties
   d With problems of evaluation
   e With teaching methods
3 Professional Aids
   a State local and national teacher association journals
   b Special bulletins

In addition to the use of non locally prepared materials some school systems maintain a regular bulletin service printed or mimeographed, others issue special bulletins only as needed The service bulletin has become an important instrument for the improvement of instructional practices

As with all improvement devices they must be chosen to harmonize with the particular purposes for which they are used the personal idiosyncrasies of the users, and the conditions under which they are employed like all aids they are subject to certain advantages and limitations The deficiencies most commonly observed in the use of these aids arise from (1) the apparent inability of some persons to prepare helpful materials, (2) the lack of interest on the part of some teachers in such materials, and (3) the failure of such materials to provide for the varying needs of particular learning and teaching situations Such materials have the advantages of (1) giving a sort of permanency to the assistance rendered (the materials may be kept for future reference and used in

many instances time and time again), (2) assuring a certain completeness and accuracy of statement (one ordinarily exercises somewhat more care in written materials than in spoken materials), and (3) saving the time of the specialists (it is not possible for them always to be present when their services are needed and to do by individual conference or group conferences what a well-prepared service bulletin may do) Because of limited space, it is impossible to reproduce here samples of the many kinds of bulletins used in helping teachers and other educational workers, but these can be secured from friends and neighbors in other school systems by writing for them Every worker should assemble such materials to use when the occasion arises

Principles of guidance in the preparation of bulletins The following list is not exhaustive It represents the results of the work of a small committee on bulletins in a supervision seminar

1 Educational bulletins should be sharply distinguished from notices from summaries of regulations, from routine announcements from news notes and so forth
2 A supervisory bulletin should be based upon and directed toward the solution of a definite need or problem which has been discovered by any of the usual means
3 A bulletin should preferably deal with but one problem, issue or item
4 Educational bulletins have their own unique values and functions and should be used only when bulletins serve better than any other means
5 Bulletins may be issued by individuals but should most frequently result from cooperative group study discussion, and summary
6 Bulletins should be dynamic provocative of thought and action (They should *not* be ordinarily mere summaries reports of action taken minutes of meetings and so forth Questions should be asked, actions suggested reactions and comments invited follow up activities suggested study guides and references included)
7 Vocabulary style, and tone should be lively and interesting, neither over enthusiastic nor pessimistic, neither pollyannaish nor nagging in tone The writing of interesting provocative bulletins is a specialized skill
8 Bulletins should provide for individual and group actions in writing, or in group discussion or in both
9 Bulletins should provide for continuity on given problems through direct reference to the problem to previous results plus suggestions for future study discussion and activity Devices and forms for measuring, evaluating, and recording progress may be included when appropriate

Mechanical Details

1 The format should be attractive The title page may well have a drawing, a cartoon, or other decorative device A provocative title is a distinct asset
2 The general organization should be clear cut and definite not buried in long paragraphs nor in rambling, non-sequential discourse
   a The problem issue or purpose should be stated clearly and briefly at the very beginning
   b Explanation and background when necessary should be brief and follow immediately the stating of the problem

c The sequence should 'march," that is should go along with reasonable rapidity and brevity Specific illustrative material however, should be used freely Drawings cartoons, graphs, pictures should be used to supplement verbal descriptions

d The conclusions or summaries should be concrete and definite, often in numbered outline form

4 The relation of a given bulletin to a series should be made quite clear

4 Credit for all quotations and for contributions from local teachers or other staff members, should be given without fail in footnote references

5 Printing is ordinarily superior to stencil reproduction

Directed reading Of the various verbal means of learning, reading is one of the best Presumably, by the time one has completed a college education, he should have acquired sufficient interest in his profession and sufficient facility in handling verbal symbols to continue a program of self-education through reading The expectation does not seem unreasonable, and the failure of persons to continue programs of self help after graduation seems quite unjustifiable Lack of facility in the utilization of reading as a tool by which new knowledges and appreciations may be had must be laid at the door of institutions educating teachers and the failure of school officials to provide an adequate professional library It would appear fair to say that no person who is not possessed of a strong desire to serve and who has not acquired sufficient facility in the use of verbal symbols for self help and continued growth in service should be employed to teach Given the proper personal qualities, one of the very best indices of an individual s probable growth in service will be found in the kinds and amounts of reading done, professional and otherwise

The sources to which one may turn for guidance in this respect are far too numerous to discuss or even list here First of all, there are bulletins, journals, and periodicals of various associations of subject matter specialists such as the *Proceedings* of the American Historical Association or the many professional journals such as the *Elementary School Journal*, the *School Review*, *Review of Educational Research*, and the *Journal of Educational Research* There are many other journals containing excellent materials Within these publications will also be found book reviews setting forth the merits and shortcomings of the many new books published each year An excellent guide to professional reading will be found in the Enoch Pratt library list of the sixty best books of the year, prepared in cooperation with the National Education Association, and published annually, usually in the April issue of the *Journal of the National Education Association* Similar lists exist in other fields All this reminds one of the teacher's professional library the school professional library, the supervisor's professional library, and other available sources of materials for continued growth in service

The reading of books both for general background purposes and for assistance with specific teaching difficulties is a practice that might be much more generally encouraged among supervisors than it now is The

chapter bibliographies in this volume supply many leads to desirable reading

SECTION 4

OBSERVATIONAL DEVICES, DEMONSTRATION ACTIVITIES, AND VISUAL AIDS

We have been discussing in the immediately preceding section of this chapter some group methods of verbal stimulation and guidance generally used in improvement programs Five different sorts of verbal devices were discussed (1) meetings and group conference (2) course work, (3) group counseling, (4) bulletins, guides, and printed aids, and (5) directed reading Other devices of this sort appear in various kinds of improvement programs, but those here discussed are probably those most used for this purpose

A second group of devices frequently employed in improvement programs are those utilizing observational techniques There are many kinds of these We would like to refer particularly to (1) demonstration school activities, (2) directed observation, (3) field trips, excursions, and travel, and (4) audio-visual aids

The demonstration center One of the very useful developments of recent years is the demonstration center The large research foundations have been particularly helpful in establishing various sorts of demonstration centers in almost every phase of education Today, many large cities have their own Centers of this sort have been particularly helpful in providing opportunities for persons to see for themselves how different departures in practice work or do not work

Directed observation of teaching A special form of directed observation of regular classroom instruction, or in the directed observation of special demonstrations both have an important place in the improvement program

The efficacy of demonstration teaching was early recognized As early as the nineteenth century, Barnard employed a successful teacher by the name of William G Baker to travel from meeting to meeting in a covered wagon with his class of twelve children to give demonstration lessons of what was then considered good teaching Demonstration lessons when given by persons who have the ability to do this sort of thing, have always been considered an important means of helping teachers They may be presented either to groups of persons or to an individual

The purposes, uses, and values of demonstration teaching have changed greatly since the early days The increasing use of modern methods which organize learning around continuing problems and which use larger blocks of time have greatly reduced the value of typical demonstration "lessons" in which the procedure of one period was demonstrated Many schools, however, will be using formal methods for a long time and in these the older type of demonstration is valuable In modern schools

demonstration of a typical daily procedure is nearly impossible Directed observation of procedure over a period of days is the valuable form here

The chief purpose of traditional demonstration teaching is to show observers "how to do it", to present sound and approved methods of procedure, devices, and techniques To be most convincing, demonstration lessons should adhere rather closely to ordinary classroom conditions both as to subject matter, method, time allowance and the like A valuable type of demonstration, however, and one which is entirely legitimate to use, elaborated in detail a certain lesson type of procedure The lesson is polished to a degree impossible under the classroom conditions Such "model" lessons are often severely criticized by teachers as being staged, unreal, and inapplicable to the usual conditions, but they seem nevertheless to serve a valuable purpose There are times when these more elaborate and more polished presentations may be extremely helpful in making clear and explicit the use of certain procedures under more or less ideal conditions The fact that such a lesson is an elaboration of the usual classroom procedure should, of course, be clear or be made clear to everyone concerned No one, of course, expects the average teacher to pursue such procedures *in toto* in her everyday classes but teachers can profit by careful observation of such more or less idealized presentations

Careful preparation for the observation is necessary That careful and detailed preparation for the demonstration should be made goes without saying Preparation of the individual group to observe the demonstration does not always seem to be regarded as too important, but it cannot be too strongly emphasized that those who are to see the demonstration must be prepared for what they are to see, if they are to observe and react intelligently Prior to the demonstration, the lesson or whatever else that may be under demonstration should be carefully analyzed, including aims, methods, and techniques It cannot be taken for granted that those for whom the demonstration is presented will without guidance see the most important points to be observed We are constantly surrounded by all sorts of phenomena that are totally unnoticed by most people because these phenomena have never been called to their attention or forcibly impressed upon them It is a serious error to assume that the physical presence of any person will lead to significant observations without direction The outlines and check lists discussed elsewhere in this volume are valuable devices for making clear to observers what they may see

Observations should, as a rule, be made in terms of carefully formulated criteria Since demonstrations, to be most effective, will ordinarily be followed by careful and critical discussion, some record of what happened would seem desirable Such records may take any one of a number of forms, such as those discussed in Chapters VII–X Sometimes it is worth while for observers to make a brief running outline of what is observed or a diary outline, such as those illustrated on pages 354 and

355 One may wish to employ some one of the more objective data gathering devices described on pages 342 and 343 Probably the most easily used device might be a check list developed for the purpose The things observed and the type of record made are in themselves excellent indices of the observer's maturity

Demonstrations should be followed by group discussion Next to the actual observation, probably the most important element is the critical discussion which should follow First of all it should establish what actually took place in the demonstration observed Observers' impressions will often differ remarkably in this respect unless some fairly adequate means of recording happenings is employed As soon as the facts seem to be fairly well established, the discussion should turn to the evaluations of what was observed The criticisms, elaborations, and questions of the observers should be carefully scrutinized Nutt,[12] some years ago, pointed out that "Such intensive practice soon develops keenness of insight, alertness of recognition and completeness of comprehension of a particular pedagogical situation" He sums up this type of demonstration as follows

> Demonstration teaching should have a definite goal This goal should be clearly known by the observers before the performance begins The observers should take careful notes during the performance These notes and the performance should be thoroughly discussed with the observers by the demonstrator, after the performance is complete

Field trips, excursions, and travel In speaking of the lack of background among teachers, an experienced supervisor recently called attention to the fact that many teachers are just not equal to modern youth with their varied out-of school experiences and opportunities to learn If extreme provincialism is to be avoided, educational workers must have an opportunity to get about a bit to see what others are doing There are many ways of getting about One of these is the sound motion picture to be described later Another means is to get out to see for oneself or with others on field trips and directed excursions The travel seminars developed by some institutions seem to possess special merit in this area The school is going to look like a mighty dull place to many persons if teachers do not keep pace with the times through travel, study, and visual aids (See Chapters X and XIV)

School boards and superintendents increasingly recognize the value of travel and of courses taken by teachers Credits, salary increments merit ratings, and other advantages are granted Some form of improvement work is increasingly suggested, if not required, within given intervals every three or five years, for instance Advantages and disadvantages accompany the various methods of rewarding study and growth

[12] H W Nutt, *The Supervision of Instruction* (Boston Houghton Mifflin Company, 1920) p 142

The use of audio-visual aids The use of audio-visual aids has done much to facilitate the development of essential attitudes and understandings There are many such aids that may be employed in the improvement program Among those that have had widest use are educational exhibits, sound motion pictures, pictures, and museum materials Limited space prevents an adequate discussion of these valuable means of helping teachers and parents A brief reference will be made to only three important aids in this field sound motion pictures, educational exhibits, and museum material

The use of sound motion pictures in improvement programs One of the newer instruments in the field of observational learning and one of great promise, is the sound motion picture combining verbal and visual learning Through the use of such means, examples of all sorts of educational departures, good and poor, can be made available to regular classroom teachers, parents, and other educationalists without the many inconveniences associated with travel and field trips The procedure employed in the use of sound motion pictures is similar to that in demonstrations The observation should be planned and the evaluations made according to carefully validated criteria There should be discussion before and after the showing of the film The film may be observed as many times as necessary, and with the personal factor removed by the use of pictures, the discussions can be as critical as desired The use of this device is just in its infancy but there is already available a large number of usable materials The following are illustrative of the materials now available

GESELL Arnold *Behavior Patterns at One Year* (sound) (New Haven, Conn Yale Clinic of Child Development 1935)

KILPATRICK W H *Dynamic Learning* (sound) (New York Teachers College Columbia University)

GATES Arthur I *The Teaching of Reading* (sound) (New York Teachers College, Columbia University)

HARTLEY William H "Teacher Education Through Films *Education Administration and Supervision*, Vol 29 (March 1943) pp 168 176 A partial list of concurrently available materials

Besides this use of sound films for demonstration purposes, the sound motion camera can be advantageously employed by those who can afford it as a means of making records of teaching and other improvement activities for self-observation and for critical analysis by others Though this use of the sound motion picture is not generally feasible at the present time because of the cost of such films, it is one that promises general use in the future as this obstacle is overcome

The use of educational exhibits and museum materials Educational exhibits have become a regular feature of most state and national gatherings of teachers Through the use of exhibits valuable assistance can be given to teachers and others particularly with reference to the materials

of instruction—textbooks, supplies and equipment Some large school systems maintain regular exhibits of materials for the training of teachers in service Young and beginning teachers may obtain valuable guidance from these materials, and even experienced teachers may obtain valuable guidance from them It should probably be emphasized that when collections of pupils work are employed for helping teachers these ought to be made up, as far as possible, of ordinary classroom work There is some skepticism concerning the merit of the carefully prepared and selected work which is sometimes used for public exhibits

Where examples of pupils work are employed for training purposes, they may include not only examples of drawing and construction work, but also compositions the outcomes of projects, lists of games and devices If the course of study is varied and extensive, calling for many new things, these exhibits may be very important aids to good teaching The illustrations furnished by such materials of the varied means of attaining the objectives of education and of the varied degrees of pupil achievement upon the same thing should be exceedingly helpful to most teachers A live, progressive teaching staff will cooperate willingly in building such a collection A good supervisory staff will aid in gathering materials and in making them available to teachers

Besides the exhibits, some school systems maintain regular museums of educational materials Then there are public museums which can be frequently used by both teachers and pupils The use of museum materials in art natural history, geography and the biological sciences should be encouraged and routinized so as to become a regular part of the training program for teachers and pupils alike

SECTION 5

INDIVIDUALIZED LEARNING BY DOING TECHNIQUES

Direct contact learning devices Besides the group type of doing devices described earlier in this chapter, there are certain individualized direct contact learning devices that may be employed with good results in most improvement programs Probably the most important of these for teachers is teaching itself Since teachers are already in the classroom, learning by doing becomes not merely the very best means of learning to teach but the most available means There is certainly no problem of providing practice facilities in the classroom as in the case of institutional training of teachers since these facilities are always present

Learning to teach-by teaching In the last analysis, one of the very best ways to learn to teach, where that is the objective, is through practice of the teaching act itself and the critical analysis of the means, methods and materials employed in relation to the results obtained Since the teacher in service is always in contact with teaching she has almost continuous opportunities to improve Practice to be most effective however

must conform to certain basic psychological facts and principles A short list of these principles was given in an earlier chapter Among the more important conditions enumerated for effective learning were the following (1) a favorable attitude on the part of the learner toward teaching and learning to teach, (2) a critical alertness on the part of the learner toward the teaching act itself (no routine performance of the teaching act will educate), (3) a willingness on the part of the learner to try new means, methods, and materials, and (4) a careful taking of stock from time to time to determine the progress achieved, since a knowledge of progress is essential to success in learning to teach Furthermore it is commonly accepted (1) that practice must be specific, (2) that attention is essential to learning, (3) that parts must be organized into wholes, and (4) that there must be a supporting system of concepts There are many more principles that teachers will need to keep in mind if participation in teaching is to be an effective instrument of instruction For further assistance in this aspect the reader is referred to any one of a number of good texts on educational psychology and psychology of learning

The acquisition of skill in teaching is a difficult task One goal of the improvement program is skill in the teaching act itself or more accurately said one goal is the successful performance of the many activities that constitute teaching broadly defined The knowledges, interests, and appreciations emphasized elsewhere in an earlier chapter are merely the antecedents to skilful teaching and not substitutes for it Because of the complexity of the teaching act and because of the difficulties involved in performance and in observing one's performance at the same time there are few skills more difficult to acquire than that of teaching

Possible facilities to be provided for stimulating the acquisition of skill School systems are increasingly providing and developing a number of aids for teachers who are studying their own work Demonstration centers have been mentioned Clinical demonstrations and discussions are more widely used every year Key teachers may be of help Definite follow up sequences may be organized The internship procedure is increasingly used during pre-service training

The possibilities and limitations of learning to teach by teaching With students of the more mature sort, learning to teach by teaching furnishes an excellent example of the possibilities and limitations of learning by doing An advantage of considerable importance in learning to teach by teaching arises out of the fact that in putting the teacher in a normal learning and teaching situation she can have a better appreciation of the problems of teaching One of the very serious limitations to the ordinary program for the institutional training of teachers is the lack of direct contact with teaching In the absence of such facilities instructors resort to all sorts of motivating and explanatory devices that are only partially effective Much of the opposition or lack

of interest on the part of undergraduates in the training offered for the institutional training of teachers arises out of the general ineffectiveness of the verbal method of creating new attitudes, in creating a problem consciousness, and making the problems of education a reality Under skilful direction desirable attitudes and a problem consciousness may, however, be acquired when the learner is put in a concrete learning and teaching situation From the direct personal experiencing of the problems of teaching come a certain meaningfulness and drive that cannot be acquired second hand from verbal symbols Besides these advantages there is an economy of learning arising from the simultaneous acquisition of knowledge and skills One of the very serious defects of the logically organized subject matter approach to learning to teach is that much of the subject matter learned is soon forgotten, and that which is retained may not be applied When learning to teach is done by direct contact with teaching, this particular loss of efficiency in learning can scarcely arise That information is acquired which is most needed, and the information acquired is directly associated with its use with a minimum loss of efficiency Then, finally, when it comes to the teaching act itself—the artistic aspects of teaching—there is after all just one way to learn to teach and that is by practice in teaching It has been repeatedly said in this volume that teaching is both an art and a science To the degree that teaching is an art involving the skilful performance of various activities it can be acquired only by practice knowledge of how to teach is no substitute for skill in this aspect of teaching In general, then learning to teach by teaching will be found effective in making the subject matter of education more meaningful by making it more interesting to the learner, and by making the application of the information acquired more certain

Among the possible limitations of this method that appear are (1) Teacher participation in teaching may be accompanied by a minimum amount of reaction on his part Learning is reacting, and where there is no reacting, there can be no learning This statement is particularly applicable to learning to teach by teaching It is not the amount of unanalyzed teaching experience that produces the effective teacher, even when all the necessary potentialities are present but the amount of analyzed experience that turns her crude potentialities into an artistic performance Activities performed in an uncritical routine fashion will not produce learning (2) The experience gained from teaching is frequently not generalized Everything else being equal, that learning or teaching is best which secures a maximum amount of transfer The various activities of which the teaching act is composed are frequently treated as if they were unique and final and as if their mastery in one situation might be taken for granted in the next, and so forth Unfortunately, however teaching requires judgment as well as skill and the foundation for good judgment about what to do in particular learning and teaching

situations will be found in the generalization made by good minds from past experiences with similar situations As has been pointed out in Chapters IV and XVII, the generalization that persons derive from experience are the materials from which good judgments may be made about what to do in present and future situations This point has already been referred to in earlier discussions of the principles and techniques of teaching (3) The experience gained from direct contact learning may not be organized Dewey defines education as the progressive reconstruction of experience The difficulty with logically organized subject-matter is not that it is organized, but that adult organizations are the subject of direct instruction The problem here is more particularly that of the beginning teacher Logically organized subject matter furnishes the goal toward which each student progresses, and as he gets more experience from direct contact, he can profit more and more from the experience transmitted through the use of verbal symbols The point here however, is that the experiences gained from direct-contact learning are frequently not organized and in the absence of such organization conflicting theories continue unresolved and the materials of experience are not left in a form for economical future use Where the experiences gained from participation in teaching are however, properly analyzed generalized, and organized through the progressive reconstruction of experience, this mode of learning is an exceedingly effective one for the training of teachers in service

Teacher participation in educational problem-solving One of the very best means of coming to some fairly substantial understanding of professional education is for teachers to study carefully and systematically the problems sensed by them in their everyday work as teachers The problem solving method has already been widely and successfully used by pupils and there is no reason to believe that it cannot be successfully used by teachers in learning to teach Buckingham,[13] Barr,[14] and Woody [1] have advocated research for teachers pointing out that both the teacher and the cause of professional education would be promoted

There are however three points to be kept in mind in attempting to stimulate research among teachers In the first place most teachers under ordinary circumstances do not have time or facilities for carrying on

[13] B R Buckingham The Public School Teacher is a Research Worker" *Journal of Educational Research* Vol 11 (April 1925) pp 237 241

——— *Research for Teachers* (New York Silver Burdett Company 1926) 386 pp

[14] A S Barr To Our Readers *Journal of Educational Research* Vol 37 (September 1943) pp 13 15 Opportunities for Research and Evaluation in Current Emergency Vol 34 (December 1942) pp 308 311 Educational Research and the Field Worker Vol 31 (September 1937) pp 1 8 What Should Teachers Know about Statistics Measurement and Scientific Techniques' Vol 31 (April 1938) pp 616 618 Implications of Research for the Classroom Teacher Vol 32 (March 1939) pp 536 537 Educational Problem Solving, Vol 32 (October, 1938) pp 138 139

[1] Clifford Woody Specifics vs Generalities for Field Workers, *Journal of Educational Research* Vol 29 (January), 1936) pp 389 391 Stimulating Instruction of Research in Michigan Schools Vol 29 (October 1935) pp 93 104

such work Certain progressive city administrations arrange this, however, by supplying substitute teachers or by reducing teaching loads

In the second place, the teacher does not as a rule have the requisite training for doing research This is a serious difficulty unless the supervisory staff or the bureau of research is in a position to supply expert assistance *There is a good deal of so-called "experimental" work going* on in the classrooms throughout the country which is not experimental research in any sense of the word It is merely the haphazard try outs of some procedure or other without controls and adequate means of evaluation This sort of work bears no relation to careful scientific investigation of either the formal or informal sort here envisaged

In the third place—and this is a vital point—there is some opposition on the part of certain administrative officers toward the teacher s undertaking systematic problem solving Many minor administrative officials have taken no advanced training over a period of many years and as a result, are either largely ignorant of modern scientific procedure or they fear and distrust it These people are often unsympathetic to experimentation by the teacher or sometimes actively oppose it During the very week that this was being written, four cases came to the writer s attention Two elementary school principals flatly prohibited the participation of individual teachers in a small research study A group of elementary-school principals refused permission to a research student (a teacher in service) to use twenty minutes of time in the various buildings examining some special individual cases Another principal refused one of his own teachers access to the pupils cumulative record cards so that this teacher could carry out a study of pupil progress over a period of years In no single case was the work of the school to be unduly interrupted, the last one did not even involve school time Each study was to have been under the direction of a competent research agency Certainly a principal must safeguard the work under his direction from undue interruption, but he stands in his own light in opposing a reasonable amount of carefully controlled experimentation In many places, of course, these administrative officers are sympathetic to and vigorously stimulate research Much good can be accomplished under such conditions

Most of these difficulties can be overcome and have already been eliminated in the better school systems

SECTION 6

INDIVIDUAL TECHNIQUES RELYING CHIEFLY UPON VERBAL TECHNIQUES

The individual conference a useful device When properly applied, the method of talking things over is one of the most useful methods of leadership, and one that will admit of the easy application of the important principles of learning and teaching discussed in an earlier chapter

It supplies a particularly valuable means of getting and giving individualized assistance and of getting down to the specifics of learning and teaching It is valuable when taken alone or when taken in conjunction with any one of a number of devices discussed earlier in this chapter It is one of the best and one of the most abused methods of helping teachers grow in service

The sources of data for the conference The data for conferences may arise from many sources (1) reactions, suggestions, and criticisms arising from observation, discussion, and so forth, (2) observation of activities, (3) need sensed by workers which induces them to seek assistance, and (4) needs discovered by pupils, teachers and supervisor working cooperatively for the achievement of the purposes of education The devices and instruments of analysis to be employed in the collection and interpretation of data with the problems growing out of their use have already been discussed at some length in Chapters VI–X

Attempts to help should be preceded by study of the situation It ordinarily saves time and adds to the value of talking things over if those concerned think about it ahead of time and make systematic preparation for it Although tentative judgments may be offered at any time, most activities are very complex and it sometimes becomes necessary to do more than merely offer snap judgments There is still a great deal of the snap judgment type of help but in the study of teaching painstaking effort is increasing It would seem unnecessary to emphasize the fact that the data should be as accurate as possible and that those responsible for its collection should not be too sure of their analysis even under most favorable circumstances Though the training and experience of those who attempt to help may enable them to offer good suggestions, there is nothing in our present state of ignorance to warrant being dogmatic Whether a given learning and teaching procedure is the appropriate one to employ in a given situation or not will depend upon many things as has been indicated earlier If the procedure employed is one observed not to work in other similar situations, if it departs from generally accepted principles of learning or guidance or if the results are unsatisfactory, then both the teacher and those who would help may rightly suspect that the procedure in question is ineffective In any case it is always well to proceed with caution, employing as far as possible the very best means of analysis available, combined with the very best judgment available Too diligent care cannot be exercised in this respect

Skill in human relations is necessary Anyone who works with persons must be adept at sensing the real, often unspoken reactions Leaders whose attention is fixed too exclusively upon goals no matter how desirable, often overlook the reactions of persons It is very easy to antagonize or to develop an emotional block It is quite possible to develop alert participation and creative endeavor

One of the best ways for those who have not had supervisory experi

ence to appreciate the difficulty of conferring with teachers is to recall the experience of giving some friend a word of advice At best, it is a hazardous undertaking Because of this human factor, the discussion of teaching is always a difficult task It is one thing to see the ways to improve teaching, and quite another to render effective assistance It is not the intent of this discussion to throw all the blame for the lack of understanding upon supervisors, but merely to call attention to the supervisor's responsibility in these cases Anyone who has had any experience with teachers knows that many of them too are selfish and self-centered, some have acquired unfortunate mental quirks that hinder adjustments and for many, interest in teaching is but a last resort Under skilful supervision and with proper personnel management many teachers who may seem otherwise unpromising can be made happy, cooperative, and generally effective in their work

Those who help must be genuinely interested in helping Teachers often sense any lack of real interest in helping and resent the intrusion To get teacher cooperation, those who would help must be genuinely interested in them and sincerely desire to help them No aspect of leadership will test so completely the supervisor's understanding of people as much as the individual conference

Create a friendly attitude by giving credit where credit is due In conferring with the teacher those who would help teachers must first of all create a friendly atmosphere Principals, supervisors, and other administrative officials are really coworkers and helpers, as has been so frequently emphasized in this volume, and friendliness should be inherent in the situation The conference must not be an inquisition The kindest and most professional spirit must prevail It must be purely impersonal and professional The orthodox approach to the conference is to express appreciation of the strong points of the teacher's work giving credit where credit is due This is a satisfactory initial move provided that which is said has a factual foundation and does not lead the teacher to believe that his work is satisfactory as is

Teachers should be led to analyze and evaluate their own teaching There is serious doubt that the supervisor who always tells the teacher what to do and how to do it is in the long run the most effective The result of such a conference may be better teaching but not a stronger teacher The teacher becomes then merely the agency through which the supervisor raises the level of instruction and not a human being in her own right Many teachers have come to depend too much on instructions from supervisors This is indicated by their comments concerning the kind of supervisory help that they desire In Morrison's report, ten teachers indicated that they wanted more specific plans or methods given to them by the supervisor six asked for better or more definite outlines of work to be done, and five suggested the value of group meetings where the assistant superintendent or supervisor might give more specific instruc

tions Only three wanted supervisory help that would help them to grow [16]

A much higher type of conference is that in which the supervisor by skilful questioning, leads the teacher to discover for himself the major elements of strength and weakness in his procedure and to devise means of improvement The conference should lead the teacher to analyze evaluate, and plan for the future Self-analysis by the teacher is of more value to him as a means of growth than the acknowledgment of any number of shortcomings, once they have been pointed out to him By merging his own personality into the common problem, the supervisor can, in a subtle way, set the teacher upon a program of self-improvement Gray suggests a device frequently employed in developing self criticism [17]

After a drill recitation has been observed, a supervisor hands to the teacher a copy of an outline containing the important points which should be considered in a given type of recitation, with the request that she review her own procedure and estimate her own efficiency as accurately as she can on each point An appointment for a conference is then made During the conference the supervisor and the teacher compare notes The strong points of the teacher's work are commented on and the contributing causes are considered The weak points are discussed and remedial measures are suggested Differences in the judgments of the supervisor and the teacher are frequently revealed These differences form a definite point of departure for profitable and thoroughgoing discussions It frequently happens that the teacher has standards which are too high or too low and which can be clarified through discussion In many cases teachers do not have definite clear cut ideas in regard to the essentials of effective teaching These conferences provide an excellent opportunity for the discussion of valid standards

The supervisor may be positive without being opinionated The supervisor and others who would help teachers may be positive without being opinionated and cautious without being colorless They must know the characteristics of good teaching and must judge practice in terms of them By being well read they can be reasonably sure of the soundness of the advice they have to offer If differences of opinion arise between them and the teacher, it is very much better that they refrain from debate Such contest seldom produces desirable results Discussion however, is entirely legitimate if impersonal and constructive, it clarifies ideas and reveals basic principles If a discussion threatens to become a debate, both teacher and those who would help had better leave it and gather more data until the evidence is sufficient to reveal the true conditions Tradition is always a stabilizing agency, and those who would help must remember the weight of sentiment and belief that clings about 'what has always been so and "what we learned at school ' To belittle these facts is fatal

[16] J C Morrison, "Improving Classroom Instruction *Elementary School Journal* Vol 20 (November 1919) p 208

[17] W S Gray Improving the Technique of Teaching *Elementary School Journal*, Vol 20 (December 1919) p 263

The discussion of teaching must be discriminating General criticism should be avoided If the principal or supervisor says, "The teaching was very good,' but fails to point out the particulars in which it was good, he merely commends If he says, "The work is poor," and fails to say in what respect, he discourages the teacher without offering constructive assistance It is much better to say "The method used in collecting papers was very economical" "The degree of attention was marked" "The explanation of the term *charter* was well given', or "The amount of time consumed in getting started was a bit long' "The class exercise was largely questions and answers," "A few illustrations might have been used to good advantage Discriminating comments leave the teacher better equipped to analyze his own teaching and to plan for progressive improvement

The discussion of teaching must be constructive As has already been pointed out, discussion of teaching must not be mere fault-finding In general, it is unwise to tear down unless there are available better materials with which to build To say to the teacher that a thing is wrong without offering a better procedure is merely to make matters worse by adding discouragement to wrong practices Say instead, "Why not try starting the class exactly on time?" 'A procedure that I have found helpful in explaining difficult terms is to use familiar examples, 'An excellent substitute for 'hearing lessons' is a carefully devised informal test" and so forth

The discussion must be of a professional nature The most desirable end to attain in the direction of teaching is a professional attitude on the part of both teacher and supervisor When the physician tells his patient that he has a weak heart, the patient not only expresses appreciation for the service but pays for it It would never occur to him that he had been insulted criticized personally, or otherwise injured There is, similarly, on the part of the physician a feeling that he has rendered a professional service Submission to treatment on the part of the patient represents a degree of confidence in the reliability of the physician This in turn is based upon the successful outcome of similar past performances Some patients refuse to accept and finally refuse to act upon medical advice Some patients die Some deaths are due to errors in diagnosis, some are chargeable to errors in treatment, and some are chargeable to constitutional causes for which the patient was not wholly responsible[18] But, in any case, the relationship is wholly professional

The discussion should be forward-looking The entire movement in the conference should be forward looking The analysis of any teaching situation is of value only as it affects future teaching situations The evil effects of mistakes should not, in general, be dwelt upon The time might much better be spent upon constructive plans and suggestions The

[18] Emery Filbey Vocational Interviewing unpublished material, University of Chicago

teacher should never find her lessons torn to pieces without constructive assistance for the future

Organized follow-up conferences A very effective procedure for stimulating study and growth is that of planning by an individual teacher with the requested aid of one or more specialists, of a continuous attack upon a given problem The problem is discovered and partially or wholly defined by the teacher A program is then planned very tentatively with constant replanning as events develop The procedure is akin to that outlined in Chapter IV for groups The activity may begin with any appropriate technique reading for better understanding or to see what has been done with this problem, with a series of visits to other teachers, with classroom try out of some item, or any other necessary analysis Procedure is then developed as insights develop and the procedure needs change Any technique of any sort may be used, provided it is appropriate and can be used within the developing sequence There will be many conferences, many readings, several try outs, intervisitation, summarizing, and so forth

Adjustment counseling for teachers The emphasis in the immediately preceding section of this chapter is upon professional improvement Teachers have many other problems with which they need assistance Symonds [19] through the use of the autobiography has indicated a very large number of adjustment problems experienced by teachers Herrick and Corey see these needs and recommend an adjustment counseling service for teachers They speak of this service as follows [20]

> The importance of emotional adjustment as a necessary if not sufficient condition of effective work has been recognized only recently by industrial personnel workers* Some school administrators and supervisors have taken this cue from industry,** but the great majority are still more like the earlier industrial efficiency experts who concentrated upon providing help with the more mechanical and objective aspects of the job Such educational leaders spend their time giving teachers a great deal of specific advice regarding text construction or the formulation of instructional purposes, or ways and means of choosing good learning experiences for children, or the use of visual aids or a host of related topics These matters are important, but so are the more subtle and more difficult and often more significant problems involving the teacher's personal adjustment The anxieties and fears and worries that are apt to exist within any instructional staff not only make optimum instruction impossible, but in many instances are passed on to the children †
>
> * F J Roethlisberger and W J Dickson *Management and the Worker* (Cambridge, Mass, Harvard University Press 1941)
>
> ** Harry L Stearns, "Administering a General Program of Supervision" *Elementary School Journal* Vol 41 (November 1942) pp 160 165
>
> † Roethlisberger and Dickson *op cit*, p 267

[19] Percival M Symonds "The Needs of Teachers as Shown in Autobiographies" *Journal of Educational Research*, Vols 36, 37 (May 1943 May 1944) pp 662 677 691 695

[20] Virgil E Herrick and Stephen M Corey, "Adjustment Counseling with Teachers," *Educational Administration and Supervision*, Vol 30 (February, 1944) pp 87 96, also, "Group Counseling with Teachers" *op cit*

To meet these adjustment needs the authors suggest the adjustment interview

> The chief purpose of *therapeutic counseling* or *the adjustment interview*, is to enable those persons who are emotionally disturbed and anxious to talk the matter out to express their feelings and emotions, and, with the aid of sympathetic and discerning help to map out and work toward a solution of their own adjustments Such interviewing is not for the purpose of providing the counselor with an opportunity to admonish or persuade or tell the teacher what should be done The assumption is that most adults who face problems resulting in emotional maladjustment are able to remap their own lives if they are given an opportunity to bring their feelings and systems of values out into the open where they can be examined Another assumption is that the teacher who works through to a solution of his own emotional problems develops a feeling of security as well as independence and resourcefulness that will stand him in good stead under a wide variety of other circumstances

The Western Electric Company which has done much in this area suggests certain principles for the adjustment interview [21]

1 The interviewer should listen to the speaker in a patient and friendly but intelligently critical manner
2 The interviewer should not display any kind of authority
3 The interviewer should not argue with the speaker
4 The interviewer should not give advice or moral admonition
5 The interviewer should talk or ask questions only under conditions such as
   a To help the person talk
   b To relieve any fears or anxieties on the part of the speaker which may be affecting his relation to the interviewer
   c To praise the interviewee for reporting his thoughts and feelings accurately
   d To steer the discussion to some topic which has been omitted or neglected
   e To discuss implicit assumptions, if this is advisable

SECTION 7

INDIVIDUALIZED OBSERVATIONAL TECHNIQUES

Directed observation of teaching Sometimes it is helpful to direct an individual teacher or small groups of teachers to observe regular class work Though this device is more common in the institutional training of teachers than it is in the training of teachers in service, it is however, an extremely effective device when properly handled, and one quite generally used in some school systems To put such a plan into operation some disposition must be made of the teacher's own pupils In larger school systems this is frequently done by the use of the substitute teacher In smaller school systems this is sometimes done by getting another teacher to assume responsibility for the class of the observing teacher for the duration of the demonstration The critical discussion of the

[21] F J Roethlisberger and W J Dickson *Management and the Worker* (Cambridge Mass Harvard University Press 1941) pp 287 ff

observation may follow at some other time, but not too much time should be permitted to elapse What has already been said about careful planning and follow up work with other demonstrations is important here The needs of the teachers concerned will determine the plan of action Sometimes it is best to begin with simple assignments of easily observable points such as routine matters, physical conditions, and house-keeping This, of course, will depend upon the teacher Later, attention may be directed to simple items of method and technique, and, as the teacher grows in confidence and skill, if this is her problem, to more difficult aspects of teacher pupil relationships Whatever is done should be done in terms of the observed teacher s pressing needs

Intervisitation An excellent device for helping teachers is the visiting day, provided in some school systems Some school officials strenuously object to this plan and criticize it severely but if properly administered it may be a beneficial procedure Usually visitation is at the teacher's will, but a better plan is to direct it in some measure In Decatur, Illinois, for example, a plan was in operation for some years in which the supervisor took a group of teachers or a single teacher to observe one of the best teachers in the system Any weak teacher in the system could be thus shown expert teaching related to any special difficulty confronting her Sometimes the teacher observed was an expert in teacher pupil relationships or she might have been noted for disciplinary skill or for efficiency in the routine factors of school management Tact is necessary, of course, in administering such a plan because of the many human elements involved When successful such a scheme as the Decatur illustration stands as a good example of cooperative supervision This device appears to have been used successfully in a great number of city systems

SECTION 8

SOME FINAL PRECAUTIONS

Many serious obstacles will be encountered in the improvement program Many things that one might do have been described in the preceding sections of this chapter What is recommended will not be easily accomplished As a matter of fact, supervisors will encounter many difficulties Some of the more serious obstacles as enumerated by Weber have been summarized in the tables on page 746

All would agree that the goals of teacher, pupil, and supervisor growth will not be accomplished without considerable effort and possibly some sacrifice of other things considered important

Techniques are always temporary in character It is hoped as the reader looks for new ideas and techniques that he will not forget their temporary character They are merely means to ends and have no value except as they serve the purposes for which they were designed History is replete with discarded and obsolete vehicles Persons who have not had

THE MOST SERIOUS OBSTACLES ENCOUNTERED IN PROGRAMS OF IN SERVICE EDUCATION *

Obstacle	*Number of Schools Listing the Obstacle as a Very Serious One*	*Per Cent of Schools*
Lack of time heavy teaching loads heavy extra curricular loads no suitable time of day	112	45 5
Unprofessional attitudes of teachers	99	40 7
Lack of money for providing professional books and magazines and suitable library facilities for staff	34	13 8
Lack of planning	21	8 5
Conflicts in personality between teachers and between teachers and administrators	14	5 7
Weariness of teachers teacher ill health	12	1 9
General unrest in the school and community	11	4 5
Authoritarian administration	10	4 1
Teacher turnover	9	3 7
Lack of supervision	8	3 2
Life certificates	8	3 2
Petty arguments	7	2 8
Reading of bulletins by the principal	6	2 1

* C A Weber Obstacles to Be Overcome in a Program of Educating Teachers in Service" *Educational Administration and Supervision* Vol 28 (December 1942) p 610

ANALYSIS OF THE OBSTACLE UNPROFESSIONAL ATTITUDES OF TEACHERS *

Types of Poor Teacher Attitudes'	*Number of Schools Listing This to Be Very Serious Obstacle*	*Per Cent of Schools Listing Poor Attitude*
Older teachers who have little interest in any kind of in service education	25	25 2
Indifference merely complacency of teachers	22	22 2
Vested interests of departments	11	11 1
Lazy teachers who shun work	9	9 1
Degree ills teachers think Masters degree makes study unnecessary	8	8 1
Opposition to change of any kind	7	7 1
Teachers pass the buck to administrators	6	6 1
Tenure makes teachers indifferent	5	5 1
Suspiciousness	4	1 1

* *Ibid* p 610

an opportunity to familiarize themselves with the history of teacher-training practices seldom realize how much styles have changed in this respect The Lyceum, Chautauqua, and teachers' institute were all in turn the 'workshop" of their era Techniques have a way of losing their

vitality as soon as the emergency that gives rise to them passes, they are frequently the product of some vital mind or personality, seldom do they continue effectively over long periods of time Ours is not by any means the only era in which teachers have been interested in growing in service

Wise choice of improvement device necessitates good judgment We attempted earlier in this volume to describe the goals of the improvement program Those of pupil growth are discussed in Chapter XI and those of teacher growth in Chapter XII Devices are always subsidiary to the growth needs of teachers and pupils There is a wealth of materials from which to choose but to get a good program one must choose wisely We have frequently emphasized the fact that techniques are not good or bad in general, but only under certain conditions for certain purposes, and when not in violation of certain principles that we hold to be true To choose wisely involves then a judgment To make good judgments involves insight, detailed knowledge of many things, and creative imagination Much valuable assistance and genuine protection will be had from systematic evaluation of what one attempts The methods of making these evaluations will be discussed in Chapter XVI

Chapter summary It has been the purpose of this chapter to discuss some of the techniques most frequently used in the improvement program They may be used for different purposes and with different types of school personnel We have assumed that teachers will be merely one of many groups of school officials that will grow in their attempts to facilitate pupil growth Parents and other adult members of the community as well as school personnel, will be participants in the program It has been assumed throughout that all these persons are working and learning together The help to be given teachers has at no time been considered inconsequential, it has always been considered merely as one phase of the larger on going improvement program

Three types of group and individual techniques have been considered (1) direct contact learning by doing techniques, (2) verbal techniques, and (3) observational techniques One of the most popular of the currently employed group techniques is the workshop This technique has been well received by teachers and supervisors alike and seems destined for a long run Emphasis was placed upon teacher participation in discovering and defining educational problems in the formulation of instructional plans and policies, in curriculum making, in the choice of instructional materials, and in the development of criteria by which the educational product and its antecedents may be evaluated Teachers meetings conventions large and small group conferences, and institutes were among the group techniques discussed Bulletins, printed aids, and books were considered as illustrative of the verbal techniques frequently used in this field A number of observational devices were discussed Particular emphasis was placed on demonstration field trips, and audio visual aids These observational devices all have great promise and many

uses in the larger improvement program Among the individual techniques discussed were learning to teach by teaching, individual problem-solving activities and the benefits to be derived from just talking it over as in individual conference Improvement devices are not good or bad in and of themselves, but good for certain purposes, persons, and conditions The wise choice of improvement devices demands good judgment To check upon the wisdom of the judgments made, a program of systematic evaluation is recommended

Individual or Group Projects

1 Interview a number of teachers and report on the following

a The difficulties or problems which they find most pressing

b The aids or techniques which they think might be helpful

c The comments they make upon improvement programs past and present with which they are or have been familiar

d The means briefly and in general which you might choose for development into an acceptable and effective service to these teachers

2 Describe a concrete situation in some detail indicating the needs the types of persons involved their temperament, training and experience, the local level of educational philosophy and any other pertinent data

Develop in outline form a program for the stimulation of teacher and staff growth which might conceivably be developed by such a group in cooperative endeavor

3 Describe a typical difficulty of some magnitude which might confront an alert and growing teacher (or a new departure which a teacher might wish to try) Describe the situation sufficiently to furnish background

Develop a series of follow-up activities (interviews readings cooperative planning tryout and so forth) through which teacher and staff members may study cooperatively the given problem

4 A study program with an individual or group may be based upon a given body of material which is already systematically organized This is wholly legitimate with adult students and when the material clearly relates to the typical ongoing activities and problems of teachers For instance teachers often ask for systematic study of facts about child nature needs and growth about the relation of education to the social order about newer techniques of evaluation Scores of such items arise in any dynamic situation

Describe a body of more or less well organized information bearing upon any problem which might normally gain attention Present in skeletonized form a training program which might conceivably be developed cooperatively by the group for the study of this material

5 Select and describe a specific problem which might be a legitimate basis for an effective teachers meeting The meeting should not be an isolated activity but a part of an ongoing program Outline the preparation for and the development of such a meeting

6 Select and describe a specific problem which would be a legitimate basis for a good bulletin Outline a bulletin to meet the situation

7 A committee may examine a number of supervisory bulletins, judge them in the light of criteria, and report results to the group

8 Report for class analysis any local program of cooperative research in which you or your staff have participated

NOTE Educational workers in service may present for class analysis any examples of the foregoing items now developed instead of developing new ones as class exercises

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Part IV

EVALUATING THE MEANS AND METHODS AND OUTCOMES OF SUPERVISION

XVI

Evaluating the Effectiveness of the Educational Leadership

Evaluation is important With the development of educational tests and objective instruments of measurement, teachers have come very generally to recognize the importance of the more accurate measurement and evaluation of the products of classroom instruction Though objective instruments of measurement are not without their very definite limitations, educational leaders generally have come to recognize their fundamental importance in a science of education and have devoted great amounts of time to their development Many mistakes have been made in the name of objective measurement, but even with all their limitations, carefully validated new type instruments of measurement have come to be recognized as better tools for evaluating the efficiency of instruction—better tools than the subjective judgments of teachers and supervisors Long before the invention of these newer instruments teachers and supervisors evaluated the products of learning and teaching to the best of their ability, but subjectively The educational measurement movement has introduced a certain amount of technical knowledge into the field of evaluation, such as that represented by the concepts of validity objectivity, and reliability, and has refined generally the means by which data are collected, but the concept of evaluation is as old as teaching itself Though much remains to be done in this field, the progress already made has been quite satisfactory and such that educationalists now, almost universally, expect teachers to use these newer instruments of measurement in furnishing evidence of the effectiveness of their activities as teachers

The authors wish to propose a similar program for supervisors and administrators Just as teachers and pupils have profited both directly and indirectly from the introduction of more accurate methods of measurement into the realm of teacher and pupil growth, there is every reason to believe that supervisors and administrators too would profit by the introduction of similar means of evaluation into their own work as school leaders Every person with leadership responsibility should be expected to furnish tangible evidence of the effectiveness of the improve-

ment programs that he proposes and puts into operation Desirable as having this information is, few administrative officials today have much notion, aside from general impression, of the effectiveness of the leadership which they provide They sometimes create a considerable amount of commotion as a bad boy might who pitches brickbats over a wall into a group of people whom he cannot see, but just how valuable this commotion is, is yet to be determined, especially in particular cases of so-called leadership Of course, such officials do have a general impression of the effectiveness of their work but this evidence, as we all know, is frequently very unreliable The problem is to make these ordinary evaluations more valid reliable, and objective

It has been repeatedly pointed out in this volume and elsewhere that only by knowing as accurately as possible the results of instruction can the processes of education be improved The same situation pertains to improvement programs There are many different ways of improving pupil growth Teachers supervisors, and administrative officials will naturally all want to use the most effective means, methods, and materials that they can command To improve their selection of improvement programs, they must have some mode of evaluating the results of these programs The point has been repeatedly made in this volume of the fact that the ultimate measure of the effectiveness of any means method, or device will be found in whether it effectively promotes teacher and pupil growth And so it is with methods of leadership

Supervisors and administrative officials seem, in general, to have been more interested in the development of programs of activities than in their evaluation As a consequence, we find ourselves in the position of having reported in the literature of education all kinds of improvement programs and activities recommended by various members of the school personnel on the basis of their own personal experience, but without scientific validation It is true that from general observation it would seem that many of these programs are effective, but a closer study of them may show, as it has in other fields, that in fact they are often not particularly effective Unfortunately, such activities set other activities in motion, which in turn inspire still others, and so on, until, without some considerable knowledge of the results of improvement programs, not only are isolated instances of ineffectiveness allowed to creep into the means and methods of leadership but also whole systems of doing things that could not be tolerated under more careful evaluation Educational leadership today is decidedly hampered in many respects by traditional practices that would undoubtedly be eliminated with the introduction of more effective means and methods of evaluation If the methods of educational leadership are to be constantly improved, steps must be taken to develop more accurate instruments for the continuous evaluation of their effectiveness

A distinction between measurement and evaluation The term "evaluation" implies a process by which the values of some enterprise are ascertained To 'measure' something is to determine the amount of some of its constituents We do not measure objects but essential parts of objects To evaluate something, then, is to determine the adequacy of some constituent with reference to some more inclusive whole or purpose such as pupil behavior, teacher performance, or some more remote social value[1] Evaluation may be considered narrowly to include only a few of the more readily measured constituents of behavior, or comprehensively, to include a wide variety of knowledges, skills, attitudes, interests, and ideals The tendency today is to be more inclusive in this respect When one administers a test to determine the degree of control that some pupil has over the fundamental processes of arithmetic, the act is one of measurement, when one attempts to pass judgment on the adequacy of this pupil's control over the fundamental processes of arithmetic for some specified purpose, the act is one of evaluation Evaluations are ordinarily many-sided affairs one may consider the adequacy of a pupil's control for the specified purpose under consideration as has been said, or one may consider the adequacy of a pupil's control in relation to his maturity, his past training and experience his interest, or his capacity The evaluation may be made, too, either in terms of results or in terms of criteria relating to important antecedents The evaluation of teaching for example may be made either by comparing measures of the results of instruction with reference to expected outcomes or by studies of the teacher's performance through the applications of criteria designed for this purpose Similarly the effectiveness of supervision may be determined either through the application of criteria designed to judge the value of the activities performed by supervisors, or through the measurement of the immediate and more remote outcomes of the supervisory program The effectiveness of both teachers and supervisors can also be indirectly estimated through the measurement of qualities commonly associated with success in teaching or supervision intelligence, social judgment health knowledge of subject taught, skill in expression, and the like and changes in these Measurement thus gives one information about the status of some constituent of something under consideration, evaluation carries the process at least one step further and involves the comparison of the status of the object and its constituents with some expected value, outcome, or standard We are concerned in this chapter with the evaluation of educational leadership

[1] H H Remmers and N L Gage *Educational Measurement and Evaluation* (New York Harper & Brothers 1943) pp 29 30
Ralph W Tyler The Place of Evaluation in Modern Education' in the *Proceedings* of the Ninth Annual Conference for Administrative Officers of Public and Private Schools Vol 9 William C Reavis editor, *Evaluating the Work of the School* (Chicago, University of Chicago Press, 1940)

Purposes for which the effectiveness of the educational leadership may be evaluated Tyler lists five purposes for which a comprehensive program of evaluation may be made -

1 To make a periodic check on the effectiveness of the school and thus to indicate the points at which improvements in the program are necessary
2 To validate the hypotheses upon which the school operates
3 To provide information basic to effective guidance of individual students
4 To provide a certain psychological security to the school staff, to the students and to the parents
5 To provide a sound basis for public relations

Within this broad frame of reference those responsible for the school program will desire to know

1 Whether the services and personnel are well chosen and efficient
2 Whether the program devised for their continued improvement is efficient

In attempting to improve the services and personnel those in positions of leadership may desire

1 To determine the worthwhileness of various special services in considering the advisability of adding to the school staff for the first time some special assistant such as a supervisor of art a specialist in reading a director of guidance, or an expert in curriculum making or such as one might desire in withdrawing services already provided
2 To determine the effectiveness of the improvement program in some important respect such for example as the program for improving the curriculum the techniques of group leadership or the means of maintaining teacher morale
3 To determine the effectiveness of the supervisory personnel principals supervisors special consultants, and other members of the administrative staff

In thinking of the purposes for which the leadership may be appraised we have tried to keep in mind that the program may be evaluated

1 From the point of view of its efficiency as a whole or/and can be evaluated from the point of view of the effectiveness of its several parts
2 From the point of view of determining whether it is worth what it costs (as in cost analysis) or/and how it may be improved
3 From within by those responsible for it as in self evaluation or/and from without by some outside agency or superior official as in school surveys or the conventional type of school supervision

The survey as a method of improving school services Almost everyone is familiar with the so-called "school survey" The school survey is usually a systematic evaluation attempted by some one not a part of the service being appraised Although surveys are ordinarily made by persons not a part of the service being evaluated, they can be undertaken by the staff responsible for the service as an act of self examination We have attempted in what is to follow to recognize the many different points of

- Tyler *op cit* pp 16
- Reavis *op cit* pp 131-133

view from which educational evaluation may take place, we would like to emphasize especially the importance of self-evaluation as a function of good leadership Self surveys provide a practical and readily available means of improving educational leadership

Methods commonly employed in evaluating the efficiency of educational leadership Regardless of whether one wishes to determine the worth of some particular type of educational leadership or the effectiveness of some activity or program, the methods of evaluation are very similar While it is our desire to emphasize the importance of self-evaluation and self improvement the outline to follow should serve the many other purposes for which evaluation may be made

METHODS EMPLOYED IN EVALUATING EDUCATIONAL LEADERSHIP

1 Methods Involving the Use of Statistical Data
   a Studies of the age grade status and progress of pupils
   b Studies of the holding power of the school
2 Methods Involving the Measurement of Pupil Growth and Achievement
   a Uncontrolled appraisal of pupil growth and achievement
   b Controlled appraisal of pupil growth and achievement
   c Correlation studies of the interrelatedness of parts and wholes in educational programs
3 Methods Involving the Measurement of Factors Conditioning Pupil Growth and Achievement
   a Measures relating to the pupils and their methods of work
   b Measures relating to teachers and teaching efficiency
   c Measures relating to the socio-physical environment for learning
   d Measures relating to the materials of instruction
4 Methods Involving the Direct Appraisal of the Program
5 Methods Involving the Appraisal of the Supervisory Personnel

SECTION I

METHODS OF EVALUATION INVOLVING THE USE OF STATISTICAL DATA

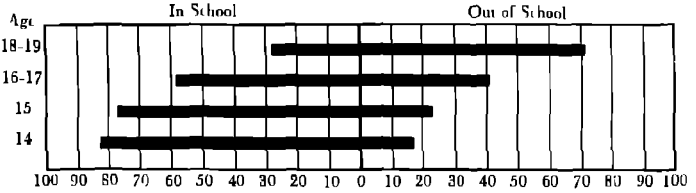
Types of counting studies Two types of counting studies have come into general use (1) studies of the age-grade status and progress of pupils, and (2) studies of the holding power of the school We shall discuss each briefly

Studies of the age-grade status and progress of pupils The age-grade study of pupil progress is an old device for measuring the effectiveness of instruction in particular school systems One of the earliest studies of this sort was made by Leonard P Ayres in 1909[4] Since that date many such studies have been made and reported upon in the literature of education, particularly as a part of school surveys Almost any good school survey will be found to contain data on the age-grade status and progress of the pupils in the school system under investigation This type

[4] Leonard P Ayres *Laggards in Our Schools* (New York Russell Sage Foundations, 1909).

of study has been used chiefly to determine the effectiveness of instruction, but it may also be used to evaluate the effectiveness of supervision and other types of educational leadership Its use as a measure of the effectiveness of the program or personnel in particular schools or communities is based upon the assumption that the more important factors conditioning pupil growth are within the control of those responsible for the program of activities provided To the extent that this is true the age-grade status and progress of pupils may constitute a valid but crude measure of the effectiveness of supervision As we move away from the age-grade concept of school organization this sort of measure may, however, prove less helpful

Studies of the holding power of the school Another rough but valuable measure of the effectiveness of the program of the school will be found in studies of the getting and holding power of the school In a recent release from the National Education Association certain data were given relative to school attendance (See the graph below) These data present an important challenge to educational leadership local, state, and national



PERCENTAGE OF CHILDREN 14-19 YEARS OF AGE ATTENDING SCHOOL IN 1940

From a National Education Association Leaflet

Lowry Nelson[5] further shows that the getting and holding power of the schools of different states varies greatly His data relate by states to the percentage of sixteen- and seventeen year-olds attending school and the number of years of schooling completed Studies of this sort present valuable data on the over-all effectiveness of the program of the school and of the personnel responsible for this program

SECTION 2

METHODS OF EVALUATION INVOLVING DIRECT PUPIL MEASUREMENT

Types of direct pupil measurement There are two types of situations in which measures of pupil growth and achievement are employed in the

[5] Lowry Nelson Education of the Farm Population in Minnesota Bulletin No 377 (Minneapolis Minn Agricultural Experiment Station University of Minnesota 1944)

evaluation of supervision (1) uncontrolled situations, as in informal evaluations of the products of learning, and (2) controlled situations, as in experimental investigations We shall discuss the uncontrolled studies first

Conditions limiting use of uncontrolled studies of the efficiency of the educational leadership in particular school situations In general, uncontrolled measures of the products of learning constitute fairly reliable measures of the effectiveness of the educational leadership in particular school situations when the measurements are extended over a considerable period of time and when the factors conditioning the products measured are within the control of those to be evaluated There are many factors to be considered if the evaluations are to be valid, some of these factors are resident in the teacher, some in the pupils some in the curriculum, some in the materials of instruction, and some in the socio-physical conditions for learning A detailed discussion of these has already been presented in earlier chapters of this volume Looking over a list of these factors, one can readily see that the amount of control exercised by various school officials—principals supervisors of special subjects superintendents, and the like—varies from individual to individual, from position to position, and from one school system to another The superintendent of schools possesses a larger amount of control over the factors conditioning the products of instruction than does the principal or the supervisor of special fields of learning, and consequently uncontrolled measurements of the products of learning constitute a better index of the effectiveness of the superintendent s supervision than they do of either principals or supervisors of special fields of learning The superintendent of schools employs the teachers, establishes an organization, develops educational policies, constructs with appropriate assistance a curriculum, directs and supervises the instruction, provides textbooks, supplies, and equipment, and in a measure controls the physical environment He thus possesses a large amount of control over the factors conditioning the products of learning, and because of this control, his effectiveness can be very rightly evaluated over a period of years through the use of well-chosen measures of the products of learning To the degree that principals and supervisors of special subjects have less control over these factors, the measures of the products of learning are less valid indices of their effectiveness except, of course, as these factors may be controlled in controlled investigations

Comparing pupil achievements in different fields of learning, schools, and school systems In the absence of complete control over the factors conditioning pupil growth and achievement, it is sometimes possible, nevertheless, to secure some ideas of the effectiveness of one's work by comparing the achievement of the pupils of one's own field of learning, school, or school system with that of the pupils having similar advantages in other situations In making such a comparison it is recommended that

data be collected relating to the factors conditioning the products of instruction as well as with respect to the products themselves, as follows *the pupils* their chronological age, mental capacity maturity, age-grade progress, achievement interest and effort methods of study, and the like *the teacher* her age training, experience, interest, effort, success as a teacher, and the like, *the curriculum and objectives* the nature of the curriculum its selection, gradation and organization, the teacher's purpose, and the like, *the materials of instruction* books, supplies, and equipment *the socio-physical environment for learning* the heating, lighting, ventilation and freedom from disturbance Though not without very definite limitations, objective data of this sort may, when the comparisons can be made between comparable groups constitute a valuable indication of the effectiveness of particular supervisors and supervisory programs

Tracing the progress of pupils Another method of evaluating the effectiveness of the educational leadership is through the use of measures of the products of learning in order to trace the progress of the pupils over some specific period of time Where administrative officials are assigned to the same position over a period of years they may find it worth while to chart the progress of the pupils under their supervision over some considerable period of time showing such data as the initial score, final score gains in point score gains in educational age (EA) gains in educational quotient (EQ) and the accomplishment quotient (AQ) for each pupil class and school Derived measures such as EA EQ and AQ should be used with great care The AQ will in many instances give a more trustworthy measure of accomplishment in relation to ability when calculated with reference to measures of special aptitude instead of general intelligence depending upon the specific information desired In many instances a comparison of AQ scores calculated from the use of both special aptitude scores and general intelligence in the AQ formula will be found enlightening Charts showing pupil progress can be employed to indicate general instructional trends for those areas of learning schools or school systems for which such information is desired The measures should be selected in such a manner as to make it possible to appraise not only the more formal aspects of learning but the less tangible products such as character changes, attitudes ideals and so on In comparing the achievement of pupils from different areas of learning, schools, and school systems, the groups should be as nearly comparable as possible There are many problems of a statistical character that those who attempt such studies will need to keep in mind in the treatment of test scores for this purpose For a treatment of these more technical aspects the reader is referred to any one of a large number of texts on the subject of statistics [1]

[1] Henry E Garrett *Statistics in Psychology and Education* (Second edition New York Longmans Green & Co 1943)

Examples of uncontrolled studies of the effectiveness of the educational leadership in particular school situations We wish now to turn to some examples of uncontrolled studies of the effectiveness of the educational leadership in particular school situations We shall begin this survey with a review of Miss Crabbs' study of the efficiency of supervision, which was one of the earliest

Crabbs' study of the efficiency of supervision in a residential city of ten thousand population[7] The purpose of Miss Crabbs investigation was two fold (1) to evolve a technique of supervision based upon measurement, and (2) to evolve a technique for measuring the efficiency of the supervision supplied Part I of the report of her investigation describes the supervisory program put into operation, Part II describes the means employed in judging its efficiency In general the author believes that the best measure of the efficiency of supervision will be found in the changes produced in the pupil measured in terms of the accomplishment quotient Although this means of measuring teaching efficiency is not perfect it is probably superior to general merit ratings of the teacher by the supervisor and to other devices commonly employed for this purpose

A survey of instruction and supervision in East Grand Forks, Minnesota The purpose of East Grand Forks Survey[8] was to evaluate the efficiency of the instruction and the supervision in this small city of four thousand population Tests were given at the beginning and end of the survey period The test given included the new Stanford Achievement Test, the Columbia Research Bureau algebra test, the Pressey biology test the American Council European history test, the Columbia Research Bureau American history test the Pressey Diagnostic test in capitalization, punctuation, grammar, and sentence structure the Seaton Pressey Diagnostic test in whole numbers and fractions, and the Sangren-Woody tests in arithmetic The intelligence of the pupils was measured by the Detroit First Grade Intelligence Test, the Detroit Primary Test, the Haggerty Delta Z, the Detroit Alpha, and the Miller Mental Ability Test Detailed data are given relative to the changes observed in the pupils during the survey period It is impossible to report the findings of this study in any detail The following excerpts will probably indicate the general character of the findings[9]

Charles C Peters and Walter R Van Voorhis *Statistical Procedures and Their Mathematical Bases* (New York McGraw Hill Book Company Inc 1940)

Helen M Walker, *Elementary Statistical Methods* (New York, Henry Holt and Company Inc 1943)

[7] Lelah Mae Crabbs *Measuring Efficiency in Supervision and Teaching* Contributions to Education No 175 (New York Bureau of Publications Teachers College Columbia University 1935) viii + 98 pp

[8] A V Overn A Survey of Instruction and Supervision East Grand Forks Minnesota, *Departmental Bulletin* Vol 15 (Grand Forks N D University of North Dakota October, 1931) 79 pp

[9] *Ibid*, p 53

Forms V and W of the Stanford Achievement Test were before and after the campaign, respectively Some of the results were gratifying to the teachers In the Lincoln school, for instance, the pupils in the second grade increased their scores in arithmetic computation to such an extent that 45 per cent of them, who had been below normal in the first test, were at or above the national norm in the second test In the third grade in February only 24 per cent of the pupils were at or above the national norm in arithmetic computation but this had increased to 92 per cent in the testing done in May There was a loss in arithmetic reasoning in that grade The percentages decreased from 88 to 58 In all other items there was an increase in the percentage who reached the national norm

At another place the author says [10]

The test given in May showed a marked improvement in the percentage of the second grade in the central school who were above the new norm compared with the percentage that had been above the February norm The only exception to this was in the test in word meaning in which the percentage above the norm in May was a little smaller than that above the norm in February The same was true of the third grade In grades four to eight inclusive although the results were somewhat mixed in the various items of the scale the pupils for the most part showed increases in the percentages of those in any grade who exceeded the standard norms for May, over those who had exceeded the norms for February

As can be seen from the above excerpts from the East Grand Forks Study, the comparisons throughout have been made with reference to the national test norms The evaluations in Miss Crabbs' study were made through the use of the accomplishment quotient which expresses the results in terms of a ratio between the pupil's educational age and his mental age Although both of these measures may be employed, they should both be employed with great care the comparison with the norms because it fails to take the pupil's ability into consideration in evaluating his achievement and the AQ technique because the pupil's general intelligence is only a rough measure of his potential achievement in any given learning and teaching situation In neither study was an attempt made to hold constant any of the many factors effecting learning, other than that of teaching

Greenfield's study of the effectiveness of supervision in Greenwood City, Wisconsin Greenfield carried on a study of his own effectiveness as a superintendent at Greenwood City, Wisconsin In reporting the results of his study, the author first describes the character of the supervisory program in Greenwood City and then gives the results of a three-year study of the effectiveness of the supervision in this school system of which he was superintendent

The following instruments of measurement were employed in the collection of data [11]

[10] *Ibid* p 55

[11] B L Greenfield A Study of the Effectiveness of a Program of Elementary School Supervision *Journal of Educational Research*, Vol 27 (October 1933) pp 123 126

1 The Kuhlman Anderson Intelligence Tests
2 The Stanford Achievement Tests Forms A and B
3 The Public School Achievement Tests, Battery A Forms 1 and 2
4 The Williams Primary Reading Scale
5 The Torgerson Diagnostic Teacher Rating Scale

The data are expressed in terms of mean gains in point scores per grade for grades four, five, six, seven, and eight The author s conclusions were as follows [12]

1 The time spent in bringing teachers into cooperative working relationship stimulating them to a consciousness of a professional attack upon teaching problems and imbuing them with a modern philosophical viewpoint of education which shifts the emphasis from factual subject matter to child interest and activity may not result in a statistically significant difference in the amount of factual material learned The fruits of such a program should be cumulative and any indication of improvement is indicative of the functioning of such a program
2 While an average critical ratio of positive 524 is not statistically significant, it can be assumed from these data that teaching can be modernized without jeopardizing factual learning
3 The fact that the results of a supervisory program such as this do not reveal themselves materially in achievement tests impresses the writer with the necessity for the use of data gathering devices which will measure the more elusive developments in child personality
4 The teachers cooperating in this program made some definite improvement in their teaching practices It is interesting to note that the teachers making the greatest improvement were also the persons whose groups made the most significant gains in pupil achievement

The three studies cited above are representative of those employing uncontrolled experimental techniques

Controlled studies of the general worth of supervision Besides the uncontrolled studies of the efficiency of supervisors and supervision discussed in the preceding section of this chapter there are many controlled investigations of both the general worth of supervision and the effectiveness of particular supervisory programs reported in the literature of education Many of the early studies in the field of supervision were of the general worth of special leadership of one sort or another

One of the first studies of this sort to be conducted in this field was conducted by Courtis [13] and Barnes in the Detroit public schools The purpose of this study was to compare the achievement of pupils in geography in supervised and unsupervised schools The experiment was carefully controlled in its procedure, and the results were interpreted with due regard for contributing factors On September 19, 1918, geography tests were given to approximately twenty-five thousand pupils in grades four, five, and six in the Detroit public schools On the basis

[12] *Ibid*, p 126
[13] S A Courtis, 'Measuring the Effects of Supervision in Geography,' *School and Society*, Vol 10 (July 19 1919), pp 61 70

of these tests the schools were divided into four equal groups an unsupervised group, an inspected group, a group supervised by schools, and a group supervised by classes Schools in group one were not visited by the supervisors, schools in group two were visited, but on the old inspectional basis, for schools of the third group the supervisor received information of the general standing of the school and did his best to make both teacher and principal understand what was expected, in the fourth group, the supervisor used such detailed information as could be furnished by the Department of Research and centered his attention upon teachers whose classes were below the general level of attainment in geography The work was continued for six weeks The groups were then retested The original scores were retabulated in order to maintain the original equality of the groups which had been distributed by changes in pupil population Comparisons were then made, and various interpretations of the results presented In comparing the relation of actual gain made by pupils to the possible gain the author concludes that [14]

In the unsupervised group the teachers succeeded in making 49 5 per cent of the desired gain Supervision by inspection raised the figure to 54 per cent supervision by schools to 68 per cent, and by classes to 69 5 per cent That is, visit of the supervisor under the conditions of Group IV resulted in an increase of achievement of 30 per cent

Another comparison was made in terms of point scores [15]

The children in the unsupervised group were able to locate correctly twenty eight states on the map in the initial test and forty three states in the final test a gain of fifteen states in the median scores of the group

In the group supervised by schools the gain was nineteen states That is, as measured by the change in median scores of the group adequate supervision increased the effects of teaching 90 per cent In terms of the per cent the actual gain was of the desired gain the results are Group I 70 per cent Group III, 83 per cent

A further idea of the changes induced by supervision can be gained by inspecting the changes in distribution [16]

In Group I the distributions for the initial and final tests overlap to the extent of 71 per cent That is, in the final test the net result is that 29 per cent of the children have higher scores than they did in the beginning For Group III the figures become 46 per cent Put in different words, the statement would be, out of every hundred children in schools without supervision, twenty nine were changed by the teaching The effect of supervision was to raise this number to forty six a gain of seventeen children Surely an agency which affects the work of teachers to such an extent that without change in the teachers the time the equipment or the size of the class more than half again as many children are benefited by the teaching is an important agency

[14] *Ibid*, p 68
[15] *Ibid*, p 68
[16] *Ibid* p 69

A study of the value of supervision in penmanship An investigation in handwriting quite similar to the one in geography reported above was carried out by Miss Lena Shaw, supervisor of penmanship in the Detroit public schools A total of 30,529 pupils was used distributed through grades three to eight A test was given at the beginning of the semester and the schools were divided into four equal groups as in the geography study just reported The same procedure was followed, one group being unvisited, the second inspected only, the third supervised by schools, and the fourth supervised by classes The work was carried on for a whole semester When the final test was given, the original scores were retabulated, and the conclusions were drawn the supervised groups showed greater improvement than the unsupervised groups The tables presenting the results by half grades are too long to reproduce here, but totals for the four groups are included in the table below

COMPARISON OF GROSS SCORES ON INITIAL AND FINAL TESTS IN HANDWRITING OF FOUR GROUPS OF PUPILS ONE GROUP UNSUPERVISED AND THREE GROUPS EACH SUPERVISED DIFFERENTLY *

Gross Scores	*Group I*	*Group II*	*Group III*	*Group IV*
Retabulation	6 935	6 913	6 969	6 931
Final Score	8 460	8 778	9,020	8 819
Gain	1 525	1 895	2 051	1,888
Per cent of possible gain	30 1	46 2	40 7	37 2

* Lena Shaw unpublished materials

The conclusions drawn were [17]

1 Supervision does pay since the schools which were not visited made only 30 1 per cent of possible gain, while Groups II III and IV made 46 2 40 7, and 37 2 per cent respectively
2 The best form of supervision is that in which the emphasis is placed where it is most needed

Though the second conclusion is not wholly justified by the evidence presented, both this study and the one preceding, seemed, however, to indicate that supervision was a worthwhile activity from the point of view of the Detroit tax payer

Pittman's study, The Value of Supervision Pittman conducted a study of the value of supervision in rural schools The problem was defined as follows [18]

The Problem Does the supervision of schools pay? If so, to what extent, in what ways, and under what conditions?

[17] Lena Shaw unpublished materials
[18] M S Pittman *The Value of School Supervision* (Baltimore Md Warwick and York 1921)

With a view to giving at least partial answers to these important educational questions the investigation discussed in the following pages was undertaken Since it was necessary to limit the scope of the investigation, it was restricted to the following question

What is the effect of supervision upon the work of rural schools when supervision is done according to the Zone plan?

The Zone Plan Defined A plan of supervision in which the supervisor divides his entire supervisory district into territorial units each of which serves as the territorial limits for one week of supervisory effort has been designated by the writer as the zone plan The purpose back of such territorial organization is to provide for systematic supervision of classroom instruction for convenient, effective and democratic teachers' meetings and for the development of a community consciousness on the part of rural communities with a view to inspiring and facilitating more effective social, educational and commercial action Such a plan was used in this experiment

Pittman used the equivalent groups method, dividing his zone into two halves The standings of the children in thirteen school functions were determined at the outset, and the two halves equated Care was taken to see that the two halves were as nearly equal as possible in population, wealth, and certain other outside factors The control half of the zone received no supervision whereas the experimental half received intensive supervision for seven months Both groups were then tested and the differences in improvement between the groups were attributed to supervision An abbreviated statement of the conclusions, drawn from Pittman's investigation, is reproduced below

1 *Results* The results of supervision in the experiment hereafter described were positive in the particulars and to the extent stated below
   - *a* Children in the supervised schools when measured by equated differences and by percentages of progress of the experimental group measured in terms of the progress of the control group, advanced approximately 194 per cent as far during the seven months in the particular functions under investigation as did the children with whom they were compared
   - *b* Upon this basis and assuming the social value of this type of educational material the value of the service of one supervisor who would produce such a difference in the total results of the school work for forty five schoolrooms similar to those supervised would be $45 102 15 per school year for that service alone (See original report for figures upon which this is based)
   - *c* The teachers under supervision did approximately four times as much professional reading as they themselves had done during the previous year and four times as much as the group of teachers with whom they were compared during the year of the experiment
   - *d* The average attendance, measured in terms of total enrolment, was 76 per cent for the year in the supervised schools as against 70 7 per cent in the unsupervised schools
   - *e* In the schools under supervision all of the children in the grades from three to eight inclusive made excellent progress with greater gains

usually in the lower grades In the schools not having supervision, the children in the grades below the seventh did not make the progress which might have been expected if the progress of the seventh and eighth grades were taken as a standard by which to compare them

f Supervision served to keep in school children who were in the seventh and eighth grades Of the children who entered those grades of the supervised schools, 92 per cent continued in school to the end of the year In the unsupervised schools, only 69 per cent completed the school year

g Supervision promoted the social life of the community

2 *Supplementary related conclusions*

a While supervision gave positive results in subjects supervised, it did not interfere with the progress of subjects not especially supervised

b In order to get the best results from supervision, the attention of all concerned must be centered upon the particular phases which it is desired to improve

The Michigan studies of the value of rural supervision A further experiment to determine the effectiveness of rural supervision was conducted in Oakland and Macomb Counties Michigan, in 1924[19] In Oakland County the work of the teachers was carefully supervised by a county superintendent and three supervisors of instruction Carried out during the year was a carefully planned program consisting of institutes district meetings supervisory visits, and demonstration lessons Intensive work was done on the teaching of reading arithmetic, language and spelling All teachers were informed in detail at the beginning of the year concerning the whole of the supervisory program In Macomb County there were no supervisors of instruction "The work of the supervisors is therefore assumed to be the significant factor in causing any differences which appear in the results The schools in the two counties were paired in such a way that the two groups were as nearly equivalent as possible, as far as pupils and teachers were concerned In each group there were thirty five one teacher schools and eight rooms of two-teacher schools

In order to measure the growth of the pupils, the following tests were given

Thorndike-McCall Reading Scale, Form 1
Woody Arithmetic Scale, Series B Form 1
Monroe Reasoning Test in Arithmetic, Form 1
Wilson Language Error Test, Story A
Morrison-McCall Spelling Test, List 1

The National Intelligence Test, Scale A, Form 2, was also given

The members of the faculty of the department of rural education and the class in rural leadership of the Michigan State Normal College administered the tests in the fall between September 8, 1924, and September 24, 1924 In the

[19] W C Hoppes and others "The Value of Supervision in the Rural Schools of Oakland County, Bulletin of the Michigan Education Association, No 7 (Lansing Mich , June, 1926), 40 pp

spring between April 27 1925 and May 14 1925, they gave equivalent forms of all tests except the intelligence test

The data for this investigation are summarized in the table immediately below

SUMMARY OF PERCENTAGES OF A NORMAL YEAR * OF SCHOOL WORK ACHIEVED IN NINE SCHOOL SUBJECTS IN SUPERVISED AND IN UNSUPERVISED SCHOOLS

Subject	Supervised Oakland	Unsupervised Macomb
Reading	130	46
Addition	188	185
Subtraction	190	151
Multiplication	172	143
Division	154	100
Arithmetic Reasoning	151	106
Correct Answers	185	113
Language	180	24
Spelling	180	52
Average †	170 8	97 0

* Determined from published standards for the tests used Although derived from scores of rural pupils they were adopted as the most significant basis for comparison in that the achievement of any group of pupils may hereafter be compared with either the supervised or unsupervised group without the necessity of repeating the entire experiment

† These averages were computed in the following manner

a The percentages of gain in each subject were multiplied by the number of pupils from whose scores the gains were computed

b The sum of the products for each subject was divided by the total number of matched pupils tested in that subject This quotient for each subject is given above

c The sum of the products was divided by the total number of pupils tested in all subjects This quotient is the average percentage of a normal year of achievement in all subjects

The average for the supervised schools was 170 8 per cent of a normal year of school work, for the unsupervised schools, 97 The difference between the supervised and unsupervised schools is 73 8, or 76 per cent, that is, the achievement of the supervised pupils was 76 per cent greater than the achievement of the unsupervised pupils

Since every attempt was made to equate the two groups in all vital respects it is believed that this experiment indicates the degree of improvement in instructional efficiency which may be secured by the introduction of a systematic program of supervision into a normal county school organization

The Indiana study of the county unit plan of supervision In 1923 to 1925, under the direction of H N Sherwood, state superintendent of public instruction of Indiana, an experimental study was made of the relative efficiency of the county unit plan of supervision [20] Two counties were chosen in which to demonstrate the value of supervision, and two other counties served as controls In the former, expert supervisors worked intensively with the teachers, in the latter, there was no super

[20] H N Sherwood, Value of Rural School Supervision *Educational Bulletin*, No 81 (Indianapolis Ind State Department of Public Instruction 1926)

vision Conditions in these four counties were fairly comparable for the various factors conditioning learning, including the experience, training, and ability of the teachers

The progress made by the pupils in all four counties was measured by means of modified forms of the Stanford Achievement Tests, including reading, arithmetic, language, and spelling The test was given at the beginning and end of each of the two years of the experiment The comparison of the progress in the experimental and control counties is presented in the table below The results are presented in terms of per cents by which progress in the demonstration counties exceeded progress in the control counties

PER CENTS BY WHICH PROGRESS IN DEMONSTRATION COUNTIES EXCEEDED PROGRESS IN THE CONTROL COUNTIES

Grade	1924	1925
4	7 3	14 6
5	6 5	25 4
6	17 9	91 1
7	24 8	24 6
8	14 8	47 9
9	11 3	26 5
Average	14 9	25 7

It can be seen from these data that in every grade in both years the pupils in the demonstration schools made more progress in achievement as measured by the tests employed in this investigation, than was made by the pupils in the control schools The per cents of excess were greater in the second year of the experiment than in the first year, showing the cumulative effect of the program of supervision Data are not available for subsequent years

The Louisiana study In Ascension and Assumption Parishes, Louisiana, a carefully controlled study was made to determine the effectiveness of supervision on a parish-wide basis The results of this study again show clearly the value of supervision as an educational activity The author summarizes the findings in this investigation as follows [21]

In September 1926 the control parish made an average score of 42 5 when tested with the Standard Achievement Test while in May, 1928, using the same form of the same test they scored 40 26 showing an improvement in composite score of 7 76, which is 24 9 per cent of its 1926 score Similarly the supervised parish, at the same time and with the same test scored respectively 30 55 and 42 91 showing an improvement of 12 36, which is 40 4 per cent of the 1926 score The rate of improvement in the supervised parish is therefore greater than that in the control parish by 16 5 per cent

In composite scores in subject scores in scores by grades in scores for all

[21] J E Lombard *Notes on an Experiment in Supervision* (Baton Rouge, La., State Department of Education 1928)

grades combined, in all combinations considered, with the sole exception of the subject of spelling considered by itself, the supervised parish showed an unmistakable advantage under the influence of the supervision The relatively excellent showing made by the control parish in the subject of spelling must be attributed to conditions in that parish rather than to want of uniformity in the supervision

In the control parish in September, 1926 the average educational quotient of pupils from third to seventh grades inclusive was 88 87 and for May, 1928, it was 91 53, showing an improvement of 2 66 in educational quotient, while in the supervised parish the corresponding quotients were 89 92 and 99 17, or a difference of 9 25

The average chronological ages in the two parishes were 11 38 years for the supervised parish and 11 79 years for the control parish An improvement of 9 25 in educational quotient means 9 25/100 00 of 11 38 or 1 05 years improvement in the educational age of a group of pupils averaging 11 38 years of age Hence, between the first and final tests the supervised parish improved approximately twelve months Similarly, 2 66/100 00 of 11 79 years is 31 years or approximately four months of improvement for the control parish This means that the supervised parish gained an advantage in education as measured by the Stanford Tests of eight months during the two years of the experiment among the pupils from third to seventh grades inclusive

Controlled studies of the effectiveness of supervision in particular school situations The purpose of the studies reviewed in the immediately preceding section of this chapter was to determine whether various types of supervisors might be employed with profit by school officials In the studies to follow, the emphasis shifts from general worth of supervision to the effectiveness of particular supervisory programs Four studies are described briefly

Gillentine's Study of Fifth Grade Reading[32] This study was undertaken in fourteen schools in seven middle Tennessee cities for the purpose of determining the value of a specific program of reading

The program was carefully planned and involved such activities as

1 Determining the objectives of elementary reading
2 Diagnosis of reading defects
3 Selecting and initiating remedial measures
4 Emphasizing silent reading
5 Providing for individual differences
6 Observing demonstration teaching
7 Analyzing the teacher's conduct of the recitation
8 Increasing attention given to lesson planning
9 Stimulating professional reading and study
10 Compiling a bibliography of children s literature
11 Emphasizing simple health rules
12 Measuring outcomes

The measuring devices used were the

1 Stanford Achievement Test
2 Thorndike McCall Reading Scale

[32] Flora Myers Gillentine, *A Controlled Experiment in Fifth Grade Reading*, Contribution to Education No 78 (Nashville Tenn George Peabody College for Teachers 1930) pp 23 24 27 28 79 80

3 Monroe Standardized Silent Reading Test
4 Stone Narrative Reading Test
5 Gates Silent Reading Test

The author reached the following conclusions

a Practically all of the groups were below normal attainment in reading ability at the beginning of the study as determined by the grade norms of reading tests which were used
b Improvement in reading ability of the supervised group was significantly superior to that of the unsupervised group
c Reading ability of the supervised group at the close of the study exceeded the norms of the tests
d The unsupervised group did not attain normal reading ability during the same period
e The supervised group maintained normal growth in other school subjects during the course of the program
f The experimental group maintained a superiority in reading ability through the sixth grade and the beginning of the seventh grade as indicated by a testing of more than two thirds of the original group two years after the program was initiated

RESULTS IN GRADES 4-8 ON COMPREHENSION TESTS (1-5) OF IOWA SILENT READING TESTS GIVEN IN TOWN CITY AND CONSOLIDATED SCHOOLS IN NINETEEN IOWA COUNTIES IN 1937-38

	Grade IV 2189 pupils	*Grade V* 2865 pupils	*Grade VI* 2916 pupils	*Grade VII* 2751 pupils	*Grade VIII* 2575 pupils
Test norm					
Pretest	84.0	57.0	78.0	102.0	124.0
Final test	98.0	69.0	93.0	115.0	136.0
Median score					
Pretest	90.2	58.0	81.2	106.3	127.8
Final test	69.5	81.0	109.5	126.7	136.6
Gain	24.3	20.6	27.3	20.1	20.8
Percentage of normal gain	174	222	169	157	179
Percentage that final test score is of test norm	126	129	118	110	108
Gain in reading age (in years and months)	1.5	1.3	1.8	0.11	1.0
Gain in reading grade	1.0	1.2	1.1	0.9	1.1

A state program for the improvement of instruction in reading[28] During the school year of 1935-1936, the regional supervisors of the State Department of Public Instruction of Iowa visited each school and made careful observations concerning the nature of the classroom instruction

[28] H. K. Bennett, 'A State Program for the Improvement of Instruction in Reading,' *Elementary School Journal*, Vol. 39 (June 1939) pp. 735-746

As a result of these observations and conferences, it was decided that a concentrated drive on the functional development of work-type reading skills with content subjects was needed The program was carried on throughout the state, and consisted of (1) a county-wide meeting of teachers at which time the nature of the remedial program was carefully explained and the initial materials distributed, (2) a half-day demonstration in each school illustrating the use of the remedial materials, and (3) a follow up questionnaire one to the teacher and one to the county superintendent of schools The schools in which the evaluation was carried out were located in three northwest and three northeast Iowa counties The results of the testing program in three counties are given in the table on page 771

The program was extended in 1937-1938 The testing program showed gains in this year varying from 157 per cent to 222 per cent of the normal gain The author describes the by-products of this program as follows

> While the main objective of the work was to improve the teaching of reading in the schools, some other important developments also took place in connection with the in service training of teachers Changes were necessary in the organization in many schools in order that provision might be made for more supervised study These changes resulted in decreasing the number of periods devoted to a given subject during the week, with a corresponding increase in the length of periods Because of the longer periods more time was used for directing study and less time was devoted to hearing lessons
>
> The emphasis on provision for individual differences resulted in efforts in connection both with the academic and with the activities phase of the program to incorporate materials that would take care of a wide variety of interests and abilities In the academic work this object was accomplished by developing study exercises of varying degrees of difficulty and by providing supplementary reference materials representing wide ranges of reading ability and interests in the various content subjects In the case of the latter the object was accomplished through the provision of activities of types that would appeal to many varied interests and abilities, some of which were intellectual and some of which were more or less mechanical, in nature
>
> Forty-six superintendents in a voluntary response to a questionnaire attached to the remedial circular, indicated that their teachers had responded enthusiastically to the program, that the majority had succeeded in developing time schedules to provide for an increased amount of directed study, and that their teachers had succeeded in individualizing their instruction in the content subjects as a result of the program

Kinhart's study of the effect of supervision on high-school English[24] The purpose of this experiment was to determine the "over-all effect of a program of supervision upon pupil achievement in high-school English *a Supervisory program* The fundamental idea underlying this program of supervision was that every pupil undergoing instruction should achieve his best growth

[24] Howard Andrew Kinhart *The Effect of Supervision on High School English*, Johns Hopkins University Studies in Education, No 30 (Baltimore, Md, Johns Hopkins Press, 1941)

b Supervisory activities After conceiving and formulating the philosophy that was to underlie the program, the supervisor proceeded to select those supervisory activities that in his judgment would contribute most effectually to the realization of his aim The supervisory activities chosen were (1) group conferences, (2) classroom visitation, (3) individual conferences, (4) examination of teaching units and tests with a study of pupils papers and records, (5) intervisitation, (6) case study The activities chosen were from among those which are usually employed by persons engaged in formal supervision A number of more modern techniques might have been included All activities were centered on knowing differences that exist in pupils and providing for these differences so that each child would make his maximum progress

Limited space does not permit a full description of the supervisory program Some idea can be secured from the following table which is a record of the time devoted to various phases of the program for one teacher

TIME RECORD OF SUPERVISION FOR TEACHER X

		Feb	Mar	Apr	May	Total
A	Shared Responsibility for Pupil Activity					
	1 Examination of units of subject matter and tests before they were used	55	70	40	50	215
	2 Examination of pupils tests and other papers after they were scored	30	45	30	45	150
	3 Analysis of errors revealed by No 2 and recommendations for improvement	45	75	45	50	215
B	Group Conferences	120	60	60	0	240
C	Conference with Teacher					
	1 Units	70	65	60	55	250
	2 Tests	45	60	45	40	190
	3 Analysis of pupil progress	40	80	65	50	235
D	Classroom Visitation	90	135	140	165	530
E	Demonstration or Intervisitation	55	0	40	0	95
F	Individual Case Study	35	40	85	65	225
G	Other Activities by Request of Teacher	25	0	35	40	100
	Total	610	640	645	560	2145

c Equating classes and teachers Twelve sections were equated on the basis of mental age, chronological age, and educational age in English as determined by standard tests Two sections were assigned to each teacher The teachers were equated on the basis of a "trial period" There were six teachers three teachers, X, Y, Z, comprised the experimental group, and three teachers, A, B, C, made up the control group

d Final testing program After the teachers had been equated and the experimental and control groups determined, supervision, the experimental factor, was applied to one group from February 6th to May 29th

On the latter date, when the experimental period ended, Form W of the New Stanford Achievement Test was administered, and for the third time, educational age in English was found A comparison of group gains in educational age from January to May reveals how much difference a particular type of supervision made Kinhart reported

I *Major Conclusions*

A Conclusion drawn on the basis of standard test results follows

1 A comparison of the experimental and control groups shows conclusively the superiority in attainment of pupils whose teachers received supervision over those whose teachers were not supervised Also, all six sections that were taught by supervised teachers made a greater final gain in educational age than any of the six sections that were taught by unsupervised teachers

B Conclusions drawn on the basis of teachers marks follow

1 On the several bases of comparison, marks assigned to pupils of the experimental and control groups show differences that are favorable to the experimental group, but in no instance is the difference statistically significant

2 The value of supervision is merely suggested when gauged by teachers' marks

II *Minor Conclusions*

1 Within the limitations of this study findings indicate that supervision is of value to both experienced and inexperienced teachers

2 Within the limitations of this study, data do not show that supervision is more effective to inexperienced than to experienced teachers in fact the difference while wholly insignificant statistically points to the possibility that supervision has greater value for the experienced teacher

3 With standard deviation as the criterion, instruction was suited to pupils on more than one level whether the teachers were supervised or unsupervised

4 Supervision, however effective according to standard tests is no assurance that every teacher will have fewer failures or that she will assign higher marks to her pupils In these respects there occurred considerable overlapping between individual teachers of the experimental and control groups

Studies of the interrelatedness of parts of the supervisory program with a functioning whole In the immediately preceding section of this chapter we have been concerned with studies of the effectiveness of particular supervisory programs These studies seem to present testimony of the worth of supervision and particular supervisory activities We wish now to turn attention to a different kind of study in which the supervisor's concern is not merely with the over-all efficiency of specific programs but with how different parts of these programs go together to make a functioning whole Unfortunately, no study has been found where all the parts or even the major parts of the program have been studied in

relation to each other and to the program as a whole The following study seems to illustrate the need in this respect

Von Eschen's evaluation of a supervisory program in rural Wisconsin He states the objectives of his study as follows [25]

1 How effective is a particular supervisory program in producing measurable changes in pupils with respect to certain stated objectives of education?
2 What is the relationship between pupil change in certain basic study skills and reading and pupil changes in seventh- and eighth-grade social studies?
3 What changes in teachers seem to be most closely associated with teaching success when teaching success is defined in terms of certain measurable pupil changes?

He employed both the equivalent and single group methods of experimentation

The following tests were given to the pupils and teachers Many of these were administered at both the beginning and end of the school year

PUPIL TESTS

Measures of Factors Conditioning Learning

Kuhlman Anderson Test Grades 7-8 (Fourth edition Minneapolis Minn Educational Test Bureau 1933)

Traxler Silent Reading Test, Form 1, for Grades 7-10 (Bloomington Ill Public School Publishing Co 1934), (TR)

Measures of Pupil Achievement or Change

The measures of pupil change may be divided into two groups (1) those measuring short-time or unit change (applied at the beginning and end of a three weeks' period) and (2) those measuring changes in the general objectives of the course (administered at the beginning and end of the six months' period)

The tests for measuring short-time or unit change over the two three-week periods used in this study and related investigations were especially constructed for use in the series of studies Two unit tests were employed

Unit I—Safeguarding Public Health (U1)
Unit II—Community Planning, (U2)

The test items used in these two unit tests were carefully checked for curricular validity with materials used most widely in Wisconsin schools

Two batteries of tests were used to measure long time change—a series of three tests developed by J Wayne Wrightstone and a series of three measures developed by Howard C Hill

[25] Clarence R Von Eschen *An Evaluation of a Supervisory Program with Seventh and Eighth Grade Teachers in Rural Schools of the State of Wisconsin* Doctor's Dissertation, University of Wisconsin, 1940

Abilities to Organize Research Material (New York, Bureau of Publications Teachers College, Columbia University, 1935), (W1)
Scale of Civic Beliefs, Form A and Form B (New York Bureau of Publications, Teachers College, Columbia University, 1935), (W2)
Applying Generalizations to Social Studies Events (New York, Bureau of Publications, Teachers College, Columbia University, 1935), (W3)

The battery of tests by Howard C Hill consists of three measures which, in spite of the more hopeful titles given two of them, appear to measure information to a considerable extent These tests are [28]

A Test in Civic Attitudes, (H1)
A Test in Civic Information (H2)
A Test in Civic Action, (H3)

The remaining test measuring long time change to be described is Iowa Every-Pupil Tests of Basic Skills, for Grades 6, 7, and 8, Test B Vocabulary, Basic Study Skills (Iowa City, Iowa Bureau of Educational Research and Service, University of Iowa, 1938) (BS) This test is organized into six parts concerned with (1) general vocabulary, (2) comprehension of maps, (3) reading of graphs, charts, and tables, (4) use of basic reference material, (5) use of the index, and (6) use of the dictionary

TEACHER TESTS

Thirteen measures were applied to the teachers who participated as members of the control group in 1937-1938 Four of these thirteen measures were readministered to the twenty-four teachers who participated during the experimental year (1938-1939) These measures were

The American Council Civics and Government Test Form B
HARTMANN, *Social Attitudes of Secondary School Teachers*
TORGERSON and others, A Test of Teacher Pupil Relationship
YEAGER Scale for Measuring Attitude Toward Teaching and the Teaching Profession

The principles of leadership chosen as controls in setting up and carrying forward the program of activities are those set forth in the 1938 edition of this book

The supervisory plan The general pattern of this study was determined to some extent by a series of related studies The detailed aids were set forth in six stencil-reproduced bulletins

Bulletin, No 1 "Objectives Measured by Various Pupil Tests'
No 2 "Practical Helps for Improving Instruction and Pupil Achievement"
No 3 "Report of Pupil Performance"
No 4 'Generalizations in Social Studies"

[28] All of these tests are published by the Public School Publishing Co Bloomington, Ill

No 5 Suggestions for the Improvement of Personality'
No 6 "Reading for Improvement in the Research Project"

In order to give careful direction to the supervisory program, a schedule of school visitation was drawn up together with a list of specific activities to be carried out during each visitation Twelve visits were made to each school Because of the assistance given the investigator in the routine matters of test administration scoring and necessary clerical work, it was possible to carry the program through with very little deviation from the original schedule It should be pointed out that the uniform general program did not preclude an individualized program within each school

A few illustrations of individual differences follow

1 Teachers varied in the degree to which they understood the general application of the scientific method to educational measurement Several had no conception whatever of this approach
2 Several teachers were unfamiliar with the purpose and use of general and specific educational objectives
3 Several teachers did not have an understanding of the use of initial and final tests as a means of determining pupil change
4 Three teachers were unfamiliar with such terms as 'standards' 'means," "norms and 'skills'
5 Two teachers immediately caught the spirit of the supervisory program and the investigation and went far beyond the average teacher in planning their instruction with reference to the objectives
6 One teacher did not know what a unit was
7 Several teachers were unfamiliar with the use of several books for developing a unit of work
8 Several teachers were unfamiliar with the use of tests for diagnostic purposes
9 One teacher insisted that she had done a good "job in teaching Units I and II during 1937-1938 even though many of her pupils showed negative change scores
10 One teacher failed to realize that she was unsuccessful in her teacher-pupil relationships

Such matters as these and the many others of which they are typical necessitated an individualized program of help

The author summarizes his findings as follows

1 The equivalent group comparison indicated that the supervisory program was effective in the areas measured by the following four tests of pupil growth and achievement
   a Safeguarding Public Health
   b Abilities to Organize Research Material
   c Applying Generalizations to Social Studies Events
   d A Test of Civic Information
2 The equivalent group comparison indicated that the supervisory program was not effective in areas measured by the following four tests of pupil growth and achievement

a Community Planning
b Scale of Civic Beliefs
c A Test of Civic Attitudes
d A Test of Civic Action

3 The single-group comparison showed that
a Pupils highest on the learning curve made the smallest gains
b In seven of the eight pupil measures the mean initial score for the pupils when in grade eight was equal to or greater than their mean final score when in grade seven
c In all cases except the *Test of Civic Action* the mean change made during the eighth grade year was greater than the mean change made during the seventh grade year

4 The supervisory program was effective in improving silent reading ability and the ability to perform such basic study skills as map reading interpretation of graphs and charts use of the basic references use of the index, and use of the dictionary The supervised group progressed approximately 100 per cent further in silent reading ability and approximately 100 per cent further in basic study skills during the experimental period than was normal for that period

5 This improvement in reading ability and basic study skills was not significantly related to changes made during the experimental period in the other areas of pupil growth and achievement as measured by the instruments employed in this investigation

6 The comparison of the performance of the participating teacher on the four teacher measures indicated that
a In no area was the improvement significant if one accepts a critical ratio of three or more as necessary for statistical significance
b There was a positive change in teacher pupil relationship which approached significance
c There were small insignificant differences for teacher test scores in information relating to government and civics in social attitudes and in interest in teaching These differences are for tests administered at the beginning and end of the school year

7 It would seem that the supervisory program was effective in producing pupil growth and achievement in some of the less traditional educational objectives, as set forth in the purposes of this study

8 The supervisory program was most effective in those areas in which the program was most concentrated

9 In order to get maximum results, supervision, it would seem, should be centered upon a particular and limited area which it is desired to improve

A careful examination of this study will show that while the author was interested in the over-all value of supervision, he was also interested in the interrelatedness of the parts of the larger program of activities Here we have tests applied to pupils and teachers alike to measure directly and indirectly the outcomes of an improvement program The study is interesting in many respects, but chiefly because of the light that it throws upon the interrelatedness of certain parts of the supervisory program

Many of the studies cited in the immediately preceding sections of this chapter fail to adhere in one or more important respects to the principles of good leadership set forth earlier in this volume

Few of the studies, including the one cited above, adequately provide for teacher-pupil-community participation in planning Many start with preconceived notions as to the needs of teachers or with inadequate recognition of the principle of individual differences in teachers and teaching learning situations Seldom are the outcomes adequately appraised Some of the more important outcomes may not be assessed at all, and some assessed only by very inadequate data-gathering devices In spite of their limitations the studies as a whole seem to point the way to improved activities in this area

SECTION 3

METHODS OF EVALUATION INVOLVING THE MEASUREMENT OF FACTORS CONDITIONING PUPIL GROWTH AND ACHIEVEMENT

Types of evaluation here considered The methods of evaluation considered in the immediately preceding sections of this chapter involved the measurement of pupil growth and achievement The evidences of effective leadership will be found, however, not merely in the changes produced in the pupils but also in the factors conditioning pupil growth and achievement To promote pupil growth one must engage in a very large number of subsidiary activities, such as, (1) those relating to the curriculum, (2) those relating to instruction and the personnel including the pupils, (3) those relating to the materials of instruction textbooks, supplies, equipment and so forth, and (4) those relating to the socio physical environment for pupil growth and learning Evidences of the effectiveness of the leadership can be found in each of these areas One superintendent's claim to effectiveness may rest, for example, upon his skill in employing and organizing the personnel for the educational program, another superintendent's claim to effectiveness might rest upon the quality of his leadership in maintaining a vital and up to date curriculum, and so on in each of the several areas of his responsibilities These areas of responsibility therefore, suggest other means for evaluating the educational leadership The possibilities in these areas are extensive

The means and methods of evaluating the subsidiary activities have already been suggested The means and methods of evaluating the subsidiary activities of which the larger school program is composed have already been suggested in earlier chapters of this volume Chapter IX for example, presents a careful analysis of the means commonly employed in evaluating the curriculum Chapter VIII presents an analysis of the means commonly employed in studying the teacher factors in pupil growth And Chapter X presents a survey of the means commonly employed in evaluating the materials of instruction and the socio-physical environment for pupil growth and achievement It is suggested that the

reader turn to these chapters for the discussions there of the methods of evaluation appropriate to each one of these areas [27]

SECTION 4

METHODS OF EVALUATION INVOLVING THE DIRECT APPRAISAL OF THE EDUCATIONAL PROGRAM

Types of evaluation here discussed We wish to discuss here evaluations of educational leadership made possible through a direct appraisal of the program of activities instituted by this leadership Much valuable information can be had about the quality of the educational leadership in any given areas of responsibility by examining the character of the program of activities provided by it To appraise the educational program it is necessary to secure judgments and opinions about it These opinions may be based upon reports secured from the personnel and other interested individuals through interviews, inventories, and questionnaires, they may be based upon observations of the program in action, as for example, in the observation of community forums educational workshops, and faculty meetings or upon a study of documentary evidences of one sort or another such as those found in the records the learning aids supplied pupils, or printed courses of study, or upon estimates, guesses, and general impressions, or upon the systematic application of criteria designed for this purpose We are here interested in the more systematic attempts at evaluating the educational program We wish to consider first two studies that illustrate the manner in which the opinions of teachers may be used in evaluating the educational program and in bringing about its improvement

Evaluations involving the use of the opinions of teachers, parents, and pupils An important source of ideas about the value of various improvement activities can be found in the opinions of parents, pupils and teachers Though the opinions of teachers and pupils have determined the tenure of many school officials, no systematic attempt seems to have been made to utilize these opinions as a means of determining the general worth and efficiency of the educational leadership There are however, available a number of such studies of the opinions of teachers of both the general worth of supervision and its effectiveness in particular school situations Reference can be made here to only two of these studies We

[27] Two excellent devices for appraising the status of numerous aspects of the educational program and the changes produced by leadership are the following

P R Mort and F Cornell *A Guide for Self Appraisal of School Systems* (New York Bureau of Publications Teachers College, Columbia University, 1937)

Excellent basis for evaluating aims objectives and classroom instruction special services for individual pupils, educational leadership and physical plant and business management

The Evaluation of Secondary Schools, General Report of the Cooperative Study of Secondary School Standards (Washington, D C American Council on Education 1939)

Excellent criteria set up for appraising all aspects of secondary education

shall describe first a study of the attitude of teachers toward various supervisory practices

Barr and Reppen [28] carried on an extensive study of the attitude of teachers toward supervision and supervisory activities They sent questionnaires to seventy-one cities with populations between 20,000 and 150,000 in seven midwestern states to determine the attitude of teachers toward various improvement practices Three hundred and sixty-seven usable replies were received The questionnaire employed in the investigation was a detailed one of the check-list type The main headings of this questionnaire without sub-items are reproduced below

I Name
II Address _____ City _____ State _____
III Teaching in Elementary School _____, Junior High School _____, Senior High School _____ (Check)
IV Subject taught (write in)
V Teaching experience Years in (*a*) Elementary School _____, (*b*) Junior High School _____, (*c*) Senior High School _____
VI Number of years in present position?
VII Training
VIII Are you supervised by (Check)
IX The amount of supervision (Check)
X In a general way from which of the following supervisors have you received the most help? (Check)
XI Rank the following list of activities in the order of their general helpfulness to you (Place the figure "1" to the left of the activity which you find most helpful "2 for the next etc)
XII Cite specific cases where help on some teaching problem was received (Give examples)
XIII Has your teaching ever been made less effective because of poor supervision?
XIV Cite specific instances where your work was rendered less effective
XV In the instances referred to above (under XIII and XIV) was it the supervisor's (*a*) idea of what constitutes teaching or (*b*) the supervisory procedure used, or (*c*) was it the supervisor himself or herself that you objected to? (Check)
XVI What do you consider to be the three most common mistakes made by supervisors in their work with teachers?
XVII Have the supervisors always made clear to you (Check)
XVIII What are some problems with which you have needed help and advice but have not received it?
XIX Have you of your own accord (own initiative) voluntarily sought aid from a supervisor?

Their findings are summarized chiefly in three chapters namely chapters 5, 6, and 7 in the original study

V The Supervisor's Most Frequent Mistakes as Seen by the Teachers
VI Some Suggestions Made by Teachers for the Improvement of Supervision
VII Summary of Findings

[28] A S Barr and Nels O Reppen "The Attitude of Teachers Toward Supervision," *Journal of Experimental Education*, Vol 4 (June, 1936) pp 237 301

The report contains many detailed evaluations of supervision in these several midwestern cities A brief excerpt from their conclusions is given below

The teachers participating in this investigation registered a considerable number of complaints against the procedures of their supervisors They criticized supervisors for inadequate planning, for distracting the class work by interruptions for failure to share their just and proper responsibilities, for dealing with abstract and theoretical problems rather than with practical problems of classroom instruction, for promoting fad and set techniques, for being antagonistic toward the newer movements in education, for engaging in frequent and apparently purposeless changes in techniques and policies of instruction, and for the absence of a consistent and well defined philosophy of education Teachers complained that supervisors criticize petty and unimportant details, and hence upset them emotionally over trifles when presumably the general character of the work was satisfactory, they were accused of correcting the mistakes openly in the presence of the pupils, they are dogmatic they interrupt the presentation of lessons with questions which have no point or are out of harmony with the particular stage of the discussion thus diverting the attention of the class from the point being developed, they offer criticisms on the basis of "snap judgments" and inadequate observation of the work, and they claim all credit for good achievement The supervisor's procedure was cited as the most frequent cause of objectionable supervision, the supervisor's personality was sometimes the cause of friction, and the supervisor's ideas of what constituted good teaching was the difficulty least frequently mentioned

Teachers wanted more help with the problems of teaching, discipline and provisions for individual differences Weak teachers wanted more help with the problems of discipline strong teachers wanted more help with the problems of teaching Weak teachers were somewhat more critical of supervision than were the strong teachers Their criticisms, however, and the problems with which they wanted assistance, were as a rule poorly stated, vague, and less well defined than those of strong teachers Beginning teachers submitted a somewhat larger number of unsolved problems per teacher than did the more experienced teachers, and they wanted more help with the problems of the curriculum Senior high-school teachers who made up 21 per cent of the total number of teachers cooperating in the study contributed 29 per cent of the unsolved problems These and other data reproduced in this investigation seem to lend support to feeling that the supervisory service of the average high school is inadequate

Somewhat less than half of the teachers could recall specific instances in which their work had actually at one time or another been hampered by poor leadership Weak teachers who produced slightly more than their share of the instances of hampering supervision complained of fear of the supervisors, the lack of support in the handling of cases of discipline, and hampering administrative practices Strong teachers complained more frequently of destructive and tactless criticism, interruptions of class work, failure to comment upon the work, and indifference General and special supervisors are charged more frequently than other supervisors with hampering the teachers' work

While teachers found much to criticize in the practice of supervision, they cited two and one half times as many instances of helpful supervision as they did of objectionable supervision They sought and secured helpful supervision with the problems of teaching, discipline, curriculum, routine administration, and individual differences Seventy-five per cent of the instances in which teachers sought and secured helpful supervision fell into these five categories Of the several types of supervisory activities they found classroom visitation and confer-

ence, demonstrations, visiting other teachers, teachers meetings, and professional reading the most helpful While differences were not great they found the experimental study of the problems of teaching, participation in curriculum construction and supervisory bulletins the least helpful Strong teachers cited more instances of helpful supervision than did weak teachers Strong teachers placed relatively more emphasis upon scholastic standard, inspiration problems of the curriculum, home relations, extra-curricular activities and individual differences than did weak teachers Weak teachers were more concerned with teaching outlines and discipline Elementary junior high school, and senior high-school teachers all contributed almost the same proportion of instances of helpful supervision The instances of helpful supervision of junior and senior high-school teachers tend to fall into a few categories emphasizing methods of teaching, problems of the curriculum, discipline and extracurricular activities, the instances of helpful supervision cited by elementary teachers distributed themselves more uniformly over the entire list of instances of helpful supervision

When teachers were asked to evaluate the several types of supervisory officials, no very marked difference appeared in their preferences They credited the fewest instances of harmful supervision to the superintendent of schools, they also credited the fewest instances of helpful supervision to the superintendent Superintendents did not as a rule have much contact with the teachers in the cities included in this investigation, and their supervision was rated generally as the least valuable General and special supervisors were credited with the most instances of both helpful and harmful supervision When the teachers were asked to rank them with other supervisors special supervisors were ranked second and general supervisors third While principals were found to be neither particularly helpful nor harmful they were rated first in general helpfulness Heads of departments and assistant superintendents were given indifferent ratings

Limited space does not permit a fuller presentation of the finding of these investigations, but sufficient information has probably been given to indicate the general worth whileness of such studies in the evaluation of supervision The teacher's attitude is always an important factor in the plans designed for his improvement

Another excellent study of the adequacy of supervisory leadership is that of Redit published by the California State Department of Education Among other items the teachers were asked to judge the efficiency of supervisors in bringing aid to the teachers in achieving with their pupils some of the new outcomes of instruction The teachers' judgments as to the efficiency of supervisory officials in bringing assistance with two specific illustrations of new outcomes are extracted from the total study and presented here as in the following tables

Redit's discussion is an excellent critical analysis and can be studied with profit Her general summary is of value here [20]

1 A very large percentage of the teachers report supervisors giving needed help

2 The bulk of needed supervisory help is appraised by the teachers as being constructive

[20] Edith E Redit "Teachers Appraisal of Rural School Supervisors' Work in California" Bulletin No 16 (Sacramento Calif State Department of Education, November 15, 1933) pp 18 20

These generalizations cannot be interpreted to mean however, that supervision, valuable as it is, has reached a state of perfection In the data are reactions to certain supervisors from which it may be implied that their help is far less than the teachers expect of them In some instances, the adverse criticism arises from the fact that some supervisors have too much to do to assist teachers as extensively as they are capable of doing under more favorable circumstances A very small group of the supervisors, however, are considered by their teachers to be unfit for the responsibilities intrusted to them, generally because of their personalities The balance of the supervisors have earned the teachers' commendations for their assistance in facilitating the education of rural school children

TEACHERS REACTIONS WITH RESPECT TO THE USAGE AND VALUE OF SUPERVISION FOR AIDING IN THE UNDERSTANDING OF SOCIAL RELATIONSHIPS

Items of Supervisory Help	Per Cent of Designated Extent of Help				Reported Usage		
	Considerable	Moderate	Little	Total	Used	Not Used	Total
In creating an environment conducive to a socialized learning situation	50 0	25 0	25 0	100	73 9	26 1	100
In providing course of study based upon valuable social experiences	55 5	22 7	21 9	100 1	81 5	18 5	100
In class organization and management	52 3	25 7	22	100	69 4	30 6	100
In developing child centered activity programs	51 8	23 5	21 7	100	73 3	26 8	100 1
In integrating program around large social studies unit	53 6	23 2	23 2	100	71 4	28 7	100 1
In establishing club and auditorium activities	40 9	19 7	39 4	100	42 1	58 0	100 1
In widening experience through inter school and inter community activities such as play days	55 9	22 5	21 6	100	70 7	29 3	100
In using educative resources in the community	39 8	29 6	30 7	100 1	56 1	44 0	100 1
In developing school as a community center	30 5	23 8	35 7	100	53 5	46 5	100 1
In character education	47 1	30 8	22 1	100	66 3	33 8	100 1

With respect to supervisory techniques used and supervisory helps given the reactions of the large majority of the teachers indicate that most of the supervisory means are widely and effectively utilized by the supervisors Among the list are some in which further improvement is noticeably needed The teachers indicate that supervisors make less use of demonstrations by supervisors or by teachers than they do of other supervisory techniques Wherever the two types of demonstrations have been used, they are reported effective by almost all of the teachers Furthermore, although 85 per cent of the teachers indicate that supervisors encourage professional reading and study, less than half of this group indicate that the supervisors do so effectively

The reactions of the teachers to the specific supervisory helps given by the supervisors disclose that the following activities should be more widely used than they are at present help in preparing children for school entrance through pre-school clinics assistance in dealing with the emotionally and socially malad

justed, aid in establishing satisfactory home and school relationships, help in establishing club and auditorium activities, guidance in using educative resources in the community, aid in developing the school as a community center, guidance in remedial work with children having sensory or nervous disorders, and help in directing the specially talented

TEACHERS' REACTIONS WITH RESPECT TO THE USAGE AND VALUE OF SUPERVISION FOR AIDING IN CULTIVATION OF HABITS OF CRITICAL THINKING

Items of Supervisory Help	*Per Cent of Designated Extent of Help*				*Reported Usage*		
	Considerable	*Moderate*	*Little*	*Total*	*Used*	*Not Used*	*Total*
In providing a course of study emphasizing acquisition of social experiences and attitudes rather than mere factual knowledge	58 1	21 0	21 0	100 0	79 0	21 0	100
In organizing socialized class procedure to demand critical analysis and judgment	41 9	30 5	27 6	100	66 9	33 1	100
In teaching child technique of collecting classifying and interpreting information	41 5	30 0	25 5	100	70 1	29 9	100
In teaching child to evaluate his own work	47 0	31 6	21 4	100	74 5	25 5	100

In some of these cases the nature of the help should be given more thought by some supervisors This same point applies to the help given to teachers regarding the following items especially establishing health habits, remedial programs for physical defects, creating an environment conducive to socialized learning, organization of classwork to obtain critical analysis and judgment, teaching the child to collect, classify, and interpret information, the techniques of the fine arts and developing plans for remedial work

When the supervisors who need to give additional attention to the several points listed above have made the necessary improvement, the value of rural-school supervision will be further increased

A rather large number of studies[80] can be found in the literature of education reporting data on the effectiveness of various improvement devices

[80] Harriet Van Antwerp, Teachers' Evaluation of the Effectiveness of Supervisory Activities ' *Educational Method,* Vol 15 (May, 1936) pp 441 447

W E Armstrong What Teachers Prefer in Supervision ' *Educational Method,* Vol 15 (February 1936) pp 270 272

C B Allen, Supervisory Devices Preferred by High School Principals," *Educational Method,* Vol 15 (October, 1935), pp 21 29

J R Shannon, "Teachers Attitudes Toward Supervision, *Educational Method,* Vol 16 (October, 1936) pp 9 14

Methods involving the study of changes in teaching procedures Another means by which the effectiveness of supervision may be evaluated is through the measurement of the changes brought about in the teaching of the teachers under supervision The improvement program functions eventually through the instrumentality of the teacher. Strange as it may seem, there are available in the literature of education few studies in which the activities of teachers are recorded before and after supervision One of the best illustrations of this type of appraisal is a study carried on by Brueckner and Cutright[81] in the Minneapolis public schools to ascertain the changes in the techniques of teaching of reading brought about as a result of a supervisory program in reading After certain preliminary steps each teacher was asked to prepare lessons which he thought demonstrated his most effective types of work reading A careful record was made of the materials and types of activities carried on in these lessons through the use of blanks especially prepared for this pur pose Thus a record was obtained of the practices of each teacher prior to the supervisory program

The first survey was followed by a series of special bulletins on different phases of the teaching of reading on which the teachers wished help A series of demonstration lessons for each grade was given on the types of reading not stressed according to the results of the first survey The city was divided into districts, and all teachers were expected to attend these meetings There were model lessons in training pupils to select and evaluate what they read and to organize what had been read These lessons were taught by teachers who volunteered their services Many local meetings were held by principals A number of reading specialists, such as Anderson and Buswell, were brought to the city by the teachers organizations to discuss different aspects of the problem, and the schools supplied themselves with the best available literature on the subject There were numerous special demonstration lessons by teachers in individual buildings Special talks were given by members of the research department, and the attention of all the teachers within the system was focused on this problem during the period of special study

After this period of training, a resurvey was made in which the scheme was repeated Teachers again taught lessons which they thought illustrated their most effective types of work reading on which the principals, in turn, made their reports The results of this investigation are also shown in the table on page 788 On the first survey, 620 lessons were reported and on the second 625 The table on page 788 contains a distribution of the lessons with each of the reading objectives reported on both surveys The second column gives the number of lessons with specific objectives reported on the first survey, the third column contains

[81] L J Brueckner and Prudence Cutright 'A Technique for Measuring the Efficiency of Supervision,' *Journal of Educational Research*, Vol 16 (December, 1927) pp 323 331

the same data for the resurvey, and the last two columns show the per cents of the total number of lessons in each survey The totals and per cents are also given for each major ability

An analysis of the table of page 788 shows that there were some interesting shifts in the teaching of reading in the interim between the surveys For example, in the first survey there were 178 lessons whose objective was one of those listed under the heading, the "ability to locate material quickly (IA)" In the resurvey there were 202 lessons which had one of these objectives These totals were respectively 28 71 and 32 32 per cent of the lessons reported Though the total number of lessons with this objective remained almost the same, an analysis of the distributions for the specific abilities listed under this heading showed a considerable shift For example, the per cent of lessons on the "ability to skim" decreased from 16 45 to 10 72, lessons on the "ability to use an index' increased from 4 84 per cent to 8 64 per cent Other variations also can be noted There was a decrease in the number of lessons having as their objective the "ability to comprehend quickly what is read" On the first survey 32 42 per cent of the lessons reported have this objective, on the resurvey, only 8 8 per cent This shift can be explained by an analysis of the data for the next two headings The number of lessons whose objectives were to develop the 'ability to select and evaluate material' increased from 8 39 to 20 64 per cent, and the lessons to develop the 'ability to organize what is read," from 23 23 to 32 96 per cent of the total This shift shows clearly the effect of the special demonstration lessons which were given during the training period Most of the lessons during the period of demonstration were illustrations of these special objectives, because of the relative small use of them reported in the first survey This change in emphasis may be considered a direct measure of the effectiveness of the supervisory program

The remainder of the table shows that there had been practically no other change The distribution of lessons on the objectives of oral reading were about the same on both surveys This also can be explained for the demonstration lessons in the training period did not touch oral reading

The information which has been collected does not give any evaluation of the improvement in the techniques of teaching reading It merely shows the changes in objectives for the lessons the teachers taught after *a period of training*

This technique also does not evaluate the efficiency of the teaching itself It merely gives a picture of what, in the judgment of the principal, were the major objectives of the lessons observed It does not show, for example, whether the teaching was skilfully done, whether the material that was used to achieve the objective was well selected, or whether the pupils increased in ability under the training given Means can be developed which will make this information available, but it cannot be secured with the technique here employed

A COMPARISON OF THE FIRST AND SECOND SURVEYS OF STUDY OF READING OBJECTIVES IN MINNEAPOLIS *

Objectives in Work Reading	Number of Lessons Reported		Per cent of Lessons Reported	
	First survey	Second survey	First survey	Second survey
1	2	3	4	5
I In which silent reading predominates				
A *Ability to locate material quickly requires*				
1 Knowledge of and ability to use an index	30	54	4 84	8 64
2 Ability to use a table of contents	11	27	1 77	4 32
3 Ability to use the dictionary	20	11	3 23	1 76
4 Ability to use a library file	1	2	16	32
5 Ability to use reference material	10	24	1 61	3 84
6 Ability to use maps tables, graphs	4	17	65	2 72
7 Ability to skim	102	67	16 45	10 72
Total	178	202	28 71	32 32
B *Ability to comprehend quickly what is read requires*				
8 The establishment of rhythmic and rapid eye movement	22	2	3 55	32
9 The elimination of lip reading and vocalization	17	3	2 74	48
10 Acquiring a vocabulary of accurate meanings	122	48	19 68	7 68
11 The habit of vigorous reading	40	2	6 45	32
Total	201	55	32 42	8 80
C *Ability to select and evaluate material needed*				
12 Judging the validity of information	2	6	32	96
13 Choosing ideas from different sources which explain or supplement one another	2	9	32	1 44
14 Discovering different ideas in different sources				
15 Deciding whether a given question is answered	9	37	1 45	5 92
16 Ability to sort essential and non essential statements	4	11	65	1 76
17 Telling what questions are answered by material	14	22	2 26	3 52
18 Finding the solution of a problem	21	44	3 39	7 04
Total	52	129	8 39	20 64
D *Ability to organize what is read*				
19 Practice in picking out central ideas	31	26	5 00	4 16
20 Practice in selecting main topics	54	69	8 71	11 04
21 Practice in outlining	48	99	7 74	15 84
22 Practice in summarizing	11	12	1 78	1 92
Total	144	206	23 23	32 96
E *Ability to remember what is read*				
23 Practice in selecting things to remember (see ability to organize)	10	11	1 61	1 76
24 An understanding of the best way to memorize				
25 An understanding of the necessity for over learning				
26 Practice in remembering	6	4	97	64
Total	16	15	2 58	2 40
F *A knowledge of the best sources of materials*				
27 Practice in selecting the proper reference books to gain an answer	1	2	16	32
Total	1	2	16	32

* L J Brueckner and Prudence Cutright, "A Technique for Measuring the Efficiency of Supervision" *Journal of Educational Research*, Vol 16 (December 1927) pp 323-331

Objectives in Work Reading	Number of Lessons Reported		Per cent of Lessons Reported	
	First survey	Second survey	First survey	Second survey
1	2	3	4	5
II Oral reading				
A *A knowledge of what makes oral reading effective*				
28 Pupils formulate a statement of the things which make oral reading effective	7	7	9	48
29 Pupils discuss why the oral reading of certain directions or announcements was not effective	1		16	
30 Pupils practice to make their oral reading more effective	8	4	1 29	64
Total	11	7	1 77	1 12
B *Ability to select material which is pertinent to a given oral reading situation*				
31 Selecting and reading to the group material to prove a point under discussion	2	1	32	16
Total	2	1	32	16
C *Skimming in preparation for oral reading*				
32 Children discuss and illustrate the difference between reading unfamiliar and familiar material	1		16	
Total	1		16	
D *An understanding of the purpose to be served by the reading*				
33 Practice in reading material to serve different purposes		2		32
Total		2		32
F *Ability to recognize and pronounce all the words in a selection*				
34 Phonics	1		16	32
35 Word analysis	1		16	
36 Drill on lists of words commonly mispronounced	1	1	49	16
37 *Using the dictionary to secure the correct* pronunciation of a word	2		32	
Total	7	3	1 13	48
F *Ability to use the voice in a pleasing effective way*				
38 The habit of noting the effect of a pleasing voice upon an audience		1		16
Total		1		16
G *Ability to interpret the thought of a selection accurately*				
39 *Practice in reading selections to give different* interpretations			32	
Total	2		32	
H *Proper attitude toward an audience*				
40 Practice in reading announcements	2		32	
41 Practice in reading directions for making things				
42 Practice in reading informational material which the rest of the group wants to know	3	2	49	32
Total	5	2	81	32
Grand Total	620	625	100 0	100 0

The survey did not measure other desirable outcomes adequately For instance, no measurement was given of the increased knowledge which the teachers had acquired of available reading materials The reports showed that principals were almost unanimously of the opinion that the teaching of reading had greatly improved during the period of special study

Surveys such as this can be devised for almost any subject and aspect of teaching [82] It is one of the evidences that the superior may offer as to his effectiveness as a supervisor

Methods of evaluation involving the appraisal of documentary evidence Much evidence of the effectiveness of the leadership in different areas of responsibility can be found in school records and documents of one sort or another As a matter of fact one of the essential conditions for an effective program of evaluation will be found in the records kept by school systems [83] To develop a program of self-survey one must therefore develop a comprehensive system of records Much effort has already been expended upon developing records relating to the pupils, teachers, and school finance Almost every school system has on file a variety of materials relating to the program of studies, the curriculum, textbooks, supplies, and the library When properly studied, these all may yield valuable data on the character of the educational program and improvement activities Chapters VI to X contain a number of suggestions on the collection and use of such data Almost all phases of the program may be so studied

Judd's proposal for more informative school reports In 1934 Judd proposed a set of standards for judging principals' reports, a set which constituted a startling and stimulating departure from the traditional procedures both for reporting and for judging reports He first points out that the usual methods of reporting are stereotyped and deal with factual trivialities This complacent routine repetition year after year of meaningless statistics of attendance, costs, supplies, about the same old curriculum, the same old methods of administering pupils, the same old methods of selecting teachers the number and dates of faculty meetings the number of visits and conferences, bulletins, etc, is one of the most disastrous results of the worthy efforts of standardization The older standards based on formal statistics were necessary and valuable in an earlier day The result now is stagnation since most schools judge themselves as good in comparison with a set of minimum essentials derived from the average and designed to secure at least this minimum for the poorest situations

Judd then proposes four sample standards which he thinks would

[82] Also see Delta P Neeley, The Effects of Planned Supervision on Teaching as Shown by Objective Analysis of Classroom Activities *Educational Administration and Supervision*, Vol 34 (May, 1938), pp 341 354

[83] Reavis, *op cit*, pp 134 137

result in the collection of evidences of an enlightened social theory, of dynamic attack, and of effective achievements Evidence of vitality and not of stagnation in the school program would appear His four samples are [84]

From the principal of each secondary school applying for approval is required a report indicating some particular in which experimental modification has been undertaken during the past year in the curriculum, class organization, methods of dealing with the public or the pupils or in some other phase of school work This report shall include a clear description of the plan of the experiment undertaken and an evaluation of the results obtained by the experiment

Report six cases in which pupils showing signs of maladjustment in their courses or in their general social relations were fully readjusted through special attention given them by the school staff Describe the way in which these cases were discovered the way in which they were treated, and present the evidence that the treatment was successful

The principal of the school shall cause to be transmitted to the inspector one or more statements from committees of the faculty with regard to plans which they have matured during the year for the cultivation in the pupils of the school habits of reading or independent effort wholly outside the assignments of any course Lists of books read or of constructive activities undertaken or of excursions organized and carried to successful completion should be submitted as a part of each statement

The principal shall give an account of the kinds of population which surrounds the school, the kinds of positions to which graduates of the school go the available resources of the community for the support of schools Against the background of the foregoing statements, the principal shall give a description of the curriculum administered by the school, describing the reasons for each course included

For some reason this vital and enlightened attack on the procedure of evaluating, and thereby improving administration and supervision has not yet had much effect on practice in general There are, of course, promising exceptions Perhaps it is too far in advance of current thinking Perhaps it would require too great effort to understand the nature of education and to do something about it In any event the writers commend it to the attention of supervisors as one of the most valuable and provocative suggestions for growth yet to appear in this field

The use of criteria for evaluating the effectiveness of the school's program and improvement activities We have referred frequently in other chapters of this book to the use of criteria in evaluating various aspects of the educational program of the school Such criteria may also be developed and applied to the improvement program Superintendent Falk has proposed the following short list of questions which may be taken to imply certain general categories for evaluating the program for the improvement of instructional services [85]

[84] C H Judd New Standards for Secondary Schools," *Journal of National Education Association*, Vol 23 (May, 1934) pp 141 142

[85] Philip H Falk, Formulating a Comprehensive Program of Evaluation for a School Year for the General Improvement of Instructional Service' in the *Proceedings*

1 Does school practice reflect more accurately the accepted school philosophy?
2 What evidences exist of professional growth of the staff?
3 How does pupil reaction to the instructional program compare with that of a year ago?
4 What strides have been made in the curriculum and course of study during the past year?
5 Can we justify more of our extracurricular activities as educationally sound than we could a year ago?
6 What growth is evidenced in terms of quantity and quality in so far as the use of the library is concerned?
7 To what extent is the guidance program functioning?
8 What kinds of classroom activities are carried on?
9 To what extent are community and environmental resources utilized?
10 Are appropriate textbooks and other instructional materials provided and utilized effectively?
11 What methods of appraisal are utilized?

Superintendent Falk's criteria are stated at least in part in terms of the changes desired in the improvement program. Other criteria will be found in Chapters VI through X.

SECTION 5

METHODS INVOLVING THE APPRAISAL OF THE PERSONNEL

Methods of appraising the personnel. We have discussed in the preceding sections of this chapter a number of approaches to the evaluation of educational leadership. Leadership in school education is a very complex activity and its evaluation equally complex. One final approach to evaluation, especially to evaluation of the self survey type, is the appraisal that can be made of the personnel, similar to those contained in recent supervisory rating scales and question lists. These evaluations may relate to the qualities of the person essential to effective leadership, principles of behavior governing effective human engineering, areas of responsibility, and the mental prerequisites to the successful discharge of these responsibilities. The work in this area has not progressed to the same point that it has in the areas of teacher and pupil evaluation, but important beginnings have been made: (1) in developing rating devices, and (2) in developing evaluative criteria of one sort or another. Following the pattern set by teacher-rating much of the early effort in this area was expended in the development of rating devices.[36]

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of the Ninth Annual Conference for Administrative Officers of Public and Private Schools, Vol. 3, *Evaluating the Work of the School* (Chicago: University of Chicago Press, 1940), pp. 185–202.

[36] S. A. Courtis, "Possibilities and Potentialities in Measuring the Work of a Principal," *American School Board Journal*, Vol. 73 (December, 1926), pp. 37–38, 135–136, 139. Katherine Taylor Cranor, "A Self Scoring Card for Supervisors as an Aid to Efficiency in School Work," *Educational Administration and Supervision*, Vol. 7 (February, 1921), pp. 91–102.

Towner[87] in a questionnaire study of the formal rating of elementary principals in fifty-eight cities with a population of from fifty to one hundred thousand and fifty-nine cities with a population of over one hundred thousand found that twenty-two cities employed rating blanks for the rating of elementary school principals The ratings were most frequently made by the superintendent of schools, an assistant superintendent, or the district principal or supervisor Though the ratings were most frequently made for such administrative purposes as supplying a basis for promotions, demotions, salary increases, dismissals, and the like, they were sometimes employed as a basis for self-evaluation and supervision of the principal's work The chief advantage reported for the use of such blanks was the stimulation that they offered for professional growth, the most frequently mentioned disadvantage was that the use of such blanks created undesirable attitudes on the part of principals The author comes to the following conclusions

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Frank W Hubbard The Principal as a Supervisor *Journal of Educational Method* Vol 8 (June 1929) pp 196 199

G H Kelley, Types of Supervisors I Have Known *School Board Journal* Vol 58 (June 1924) pp 51ff

S G Rich Rating of Principals and Superintendents *Education* Vol 42 pp 496 500

William T Longshore and Roscoe V Cramer Evaluating the Supervision of the Elementary Principal *School Executives Magazine,* Vol 51 (January 1932) pp 201-203, 230

John W Lyda, A Self Rating Scale for Supervisors *Teachers College Journal,* Vol 2 (May 1931) p 151

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Stephen G Rich The Rating of Principals and Superintendents *Education* Vol 42 (April, 1922) pp 496 500

P R Spencer, A High School Principal's Self Rating Card *School Review,* Vol 30 (April 1922) pp 268 273

George D Taylor Evaluating the Principal's Program *The Principal and Supervision Tenth Yearbook* of the Department of Elementary School Principals (Washington D C, National Education Association 1930) pp 559 563

Taylor S Joseph, Some Desirable Traits of the Supervisor, *Educational Administration and Supervision* Vol 9 (January, 1923) pp 1 8

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S E Weber, 'Rating Teachers and Principals to Improve Their Service, *American School Board Journal,* Vol 80 (April, 1930) pp 47 49

William L Wrinkle, The Improvement of Supervision' *Educational Administration and Supervision,* Vol 16 (December 1930) pp 641 648

[87] Earl M Towner The Formal Rating of Elementary School Principals *Elementary School Journal,* Vol 35 (June 1935), pp 735 746

1 Because of the value of a rating blank in setting standards and promoting self-analysis and self-improvement in principals and because of its indirect effect on instruction, the formation of an adequate rating blank for principals should receive careful consideration in all school systems
2 Little material has appeared in print on the subject of the rating of elementary-school principals There are, however, numerous studies of principals and of the principalship which will prove valuable in the formation of a rating blank
3 The rating of principals on blanks especially designed for that purpose is a procedure in use in only one city of the group with populations of fifty to one hundred thousand and is practised in but few cities with populations of more than one hundred thousand
4 The blanks in use for rating principals have generally been formulated by the superintendent's office or by the superintendent's office in conjunction with the principals
5 Superintendents, assistant superintendents, district superintendents, and district principals are the officers most commonly performing the act of rating
6 Ratings are used in a variety of ways and for a number of purposes, both administrative and supervisory
7 The practice of rating principals on blanks made for the purpose of rating teachers is slightly more common than the practice of rating principals on blanks designed especially for the rating of principals
8 Elementary-school principals and high school principals are commonly rated on the same blank
9 The number of contemplated revisions of blanks, the length of time that rating plans have been in operation and the number of cities which have abandoned formal rating plans lead to the conclusion that the rating of principals has proved rather satisfactory whether the rating is done on a teacher's rating blank or on a special blank
10 Among the large number of values assigned to rating blanks for elementary school principals school officials would place at the top of the list the stimulation toward professional growth and increased efficiency and the setting of standards by which a principal's work may be judged
11 Chief among the disadvantages assigned to the formal rating of principals school officials list the creation of undesirable attitudes on the part of the principals
12 School officials of systems having special rating blanks for principals are more or less agreed that these rating are too subjective
13 In cities which do not formally rate principals visitation, contacts and conferences commonly form the basis for determining the efficiency of principals

A summary of suggestions made by teachers to principals on what to do and how to act in relationships with teachers Those in position of leadership can secure many valuable suggestions from those whom they would assist Simpson, with the assistance of a group of elementary and secondary-school teachers, presents the following list of suggestions relating to what to do and how to act in relationships with teachers in a school reading-improvement program [88]

[88] Ray H Simpson, Teachers Offer Suggestions to Principals *Educational Administration and Supervision*, Vol 30 (December, 1944), pp 560 565

1 Do not announce in a faculty meeting 'We are going to study reading because I feel that we need that most this year'
2 Do not make hard and fast plans without giving weight to the ideas of those who will be most concerned in carrying them out—the teachers and learners
3 Emphasize with the teachers the need to have a wide variety of methods and approaches A method that is excellent in one situation may be very poor in another
4 Emphasize the tentative nature of long time plans
5 Show teachers that you are vitally interested in what they are doing
6 Never directly reprove a teacher before another teacher
7 Never tell a teacher he has to teach by a certain method or use certain specific approaches to learning
8 Do not encourage the use of questionable motivation devices such as fears and threats, to enlist the help of teachers or pupils
9 Do not tell teachers what to do, but ask them to help you make plans to meet the reading needs in your school
10 Do not try to push the program too rapidly
11 Avoid being a dictator
12 Confer with members of the faculty and respect their opinions
13 Speak to teachers pleasantly
14 Encourage each teacher to study the reading problems of himself and the learners with whom he works so that he may meet them more effectively
15 Make arrangements with teachers to invite some outside specialists to come in and work with them in attacking reading problems
16 Encourage teachers who have little confidence in their abilities to make progress
17 Encourage teachers to go at changes gradually so that they may get the feel of changes rather than jump into a sea of confusion
18 Make your practices democratic always
19 Keep in mind basic characteristics of human beings Be sympathetic and understanding of the opinions of others
20 Do not compel the teaching group to enter into such a program If the teachers have to be forced into a program, it indicates that some program priming is necessary
21 Do not make the reading program an imposition on teachers as far as work schedule is concerned
22 Lead your faculty to set up a series of professional meetings dealing with the reading program
23 In supervisory work ask questions, questions, questions—and don't pretend to know all the answers!
24 Feel free to depend greatly upon your skilled "reading teachers to lead in faculty meetings
25 Do not dictate problems to the teacher, but give the teacher and children freedom to set up problems that best meet the needs of the children as individuals and as a group in that school or community
26 Remind teachers that the first principle is to begin with the child where he is and to help him move along happily and at his own level
27 Encourage the teachers to develop child participation in deciding problems and in setting up steps for their attainment

Evaluating the work of the supervisor The illustration given above is in the area of principal evaluation The supervisor's work may be

judged in a like manner The literature of this problem up to 1931 is well summarized in the *Fourth Yearbook* of the Department of Supervisors and Directors of Instruction entitled *The Evaluation of Supervision* Although this yearbook is now some years old, it contains much valuable material It contains, too, what is probably the most elaborate check-list yet devised for supervisory self-appraisal It is accompanied here by selected paragraphs from the discussion [88]

The possibility of intelligent analysis by the supervisor of himself and his work is dependent upon a satisfactory appraisal of the activities and results of supervision Scientific investigation is slowly contributing objective evidence which will furnish a valid basis for judging one s own work Until such time as there is a sufficient accumulation of facts as to what constitutes supervision and what activities bring most desirable results, we can only experiment with rating scales and check-lists as a means of improving supervisory service Such experiment is justifiable however

A Check List for Analyzing Supervisory Service

General Explanation

The use of a check list is suggested as a means of analyzing and evaluating one s own work with a view to appraising and improving it A check list is suggested rather than a more formal rating scale because the committee feels that present knowledge of the ways and means of supervision and of results obtained is too meager to warrant the use of any measure which might presume to be precise and final The check-list suggested is not in any sense an instrument of measurement it is intended to be used for diagnostic purposes The result of this self analysis should be to discover what is being accomplished and to identify those activities and characteristics which are functioning actually to facilitate learning in children and teachers

The criteria discussed elsewhere in this work have been closely followed in the construction of the list

The unit school situation with its needs and with the philosophy which dictates its policy, must be taken into consideration when building a check-list *Consequently, the check list which follows* is suggestive only of what can be done It is not intended or designed to fit all situations It is to be hoped that it will serve as a guide for constructing other lists that will fit a local situation and that check-lists so constructed will be used experimentally to determine the value which can be derived from their use

The activities listed are those which the committee has agreed upon as being in the supervisor s province These activities are being used by supervisors in the field Their relative or even ultimate importance has yet to be determined In fact future investigation may necessitate leaving out items now included Again, the check list, properly used, should help to determine that

It is felt that the results which a supervisor achieves are the best indication of the effectiveness of his work Consequently, these are considered first The list of personal traits is purposely brief No one can question the desirability of a supervisor s possessing as many admirable personal qualities as possible The difficulty lies in arriving at any common agreement as to the selection of char

[88] Clifford Woody and others, *The Evaluation of Supervision, Fourth Yearbook* of the Department of Supervisors and Directors of Instruction (Washington, D C, National Education Association, 1931), pp 97, 101 107

acteristics, the definition of terms, or the significance of any given trait in producing results

No attempt is made to weight the various elements It is felt that weighting would be justified only if evidence were available as to the relative importance of the items enumerated Moreover, since the check list is to be used for self-analysis rather than for rating, it seems possible to realize the purpose without weighting the elements

No provision has been made for a final accounting A summary is possible, such as the one which Kyte and Howe[40] have used in their diagnostic rating scale for teachers After underscoring the items according to the three degrees mentioned, a general conclusion can be made below average, average superior

Each item is followed by three descriptive terms which suggest three degrees of achievement The explanation which follows each item should be read before attempting to determine which degree one has attained

Check List for Self Analysis

I *Results of the Supervisor's Activities*

A Effect on Pupils

1 Initiative (lacking, moderate marked)
Children are growing in ability to initiate worth while activities

2 Responsibility (careless, passive, careful)
Children are developing ability and willingness to assume responsibility for the successful outcome of school activities

3 Methods of study and work (inefficient ordinary efficient)
There is growth in ability to see problems in life situations in ability to plan and carry out the solution of these problems and in the ability to generalize and transfer solutions

4 Use of leisure (inferior, average superior)
There is a growing tendency for the children of the community to make wise use of their leisure time there is a decrease in aimless activity and an increase in wholesome enterprises for out of school hours

5 Health habits (careless, moderate careful)
Children are acquiring those habits which produce and maintain good health

6 Achievement in the Three Rs (inferior, average superior)
Children display satisfactory achievement in reading writing, arithmetic language and spelling

B Effect on Teachers

1 Understanding of child nature (little passable superior)
The supervisor guides his teachers to a more adequate knowledge and better understanding of child nature in the light of the contributions of science in the fields of biology psychology, and sociology

2 Understanding of human relations (little passable superior)
The teachers are growing in their ability to recognize and respect the personalities of other people, particularly children

3 Understanding of educational values (little, passable, superior)
The supervisor guides his teachers in acquiring a knowledge and understanding of the larger issues in education He is concerned

[40] Howe Kyte Diagnostic Rating Card Can be obtained from G C Kyte University of California, Berkeley, California

with vital problems of child welfare and leads his teachers to a keener interest in current educational problems and to a scientific attitude toward their profession

4 Recognition and diagnosis of teaching difficulties (weak, limited skilful)
The supervisor helps his teachers to recognize the difficulties which daily confront them Teachers are learning how to evaluate and diagnose difficulties

5 Techniques for solving teaching problems (ineffective, ordinary, effective)
The supervisor stimulates his teachers to organize try out techniques for problem solving and to report and evaluate the results of such procedures

6 Improvement in technique of classroom instruction (little passable, marked)
The supervisor directs teachers toward acquiring control over teaching method He sees that his teachers acquire intelligent understanding of approved methods

7 Use of materials and equipment (questionable, limited effectual)
The teachers are skilful in the choice and use of instructional materials They are in possession of the means of evaluating these

8 Management of routine matters (weak, moderate, skilful)
The school room machinery runs smoothly The attention given it is reduced to a minimum while a high degree of efficiency is maintained

9 Teacher participation (little, limited, considerable)
There is a spirit of cooperation among teachers, supervisors and principals, and the teaching force shows a maximum of activity in conferences, meetings, curriculum construction educational programs, community affairs

10 Voluntary requests for supervisory assistance (infrequent, limited, frequent)
The supervisor develops among teachers the ability to make intelligent requests for supervisory assistance

C Effect on Community

1 Interest in school (weak mild, hearty)
The supervisor helps to maintain interest by keeping the community informed concerning the activities and objectives of the school

2 Appraisal of school (lacking passive, discriminating)
The criticism of school activities is intelligent and constructive

3 Readiness to support and improve schools (hindering, passive, marked)
The community is ready, after intelligent study of the situation, to furnish necessary and sensible support, financial and otherwise

4 Cooperation with school officials (little, acceptable, considerable)
There is a spirit of cooperation between the school and the community

D *Effect on Supervisor*

1 Self-appraisal (uncritical, ordinary, critical)
The supervisor is able to make valid self-criticism and profit by it

2 Creative effort (lacking, moderate, marked)

The supervisor recognizes and encourages creative effort among his co-workers and makes a contribution himself to the progress of education and child welfare

3 Amount of cooperation (insufficient, moderate considerable)
The supervisor makes use of every opportunity to cooperate with administrators and teachers, and with members of the community where such cooperation means improvement in learning conditions

4 Nature of cooperation (weak, commonplace, hearty)
The supervisor displays unusual ability to get along with children, teachers administrators and people in the community He is actively cooperative and is sincere and open minded in his dealings with others

II *Supervisory Activities*

A Supervisory Planning (meager commonplace extensive)
The supervisor has a well organized plan of action This plan is comprehensive and forward looking, and is arrived at after a careful survey of the local situation and its needs, both present and future It is based on the philosophy of education accepted and upon modern principles of education It is a cooperative endeavor the result of consultation with the entire supervisory administrative and teaching force

B *Observation of Classroom Situations (indefinite passable, definite)*
Visits are planned with a definite purpose in mind The supervisor displays skill in the evaluation of both pupil and teacher activity and in his ability to use this evaluation as a basis for constructive help in the improvement of learning conditions

C Individual Conferences (destructive passable constructive)
The supervisor organizes his conferences around a central purpose He has an intelligent understanding of approved methods and materials and is capable of analyzing an observed situation and of discussing it with others He endeavors to get the teacher's point of view and to stimulate him in analyzing his own problems and suggesting their solution There is a spirit of cooperation present and a maximum of participation on the part of the teacher The conference is marked by satisfactory results apparent to both teacher and supervisor

D Teachers' Meetings (valueless ordinary, valuable)
The supervisor holds frequent meetings to provide instruction in and discussion of pertinent vital problems He is skilful in the technique of conducting meetings and of planning meetings to serve various ends An essential feature of these meetings is a healthy spirit of cooperation and a generous amount of discussion in which those present participate

E Supervisory Bulletin (useless limited, useful)
Bulletins are sent out when needed to serve some useful purpose There is a careful check-up to determine the effectiveness of the bulletins Teachers are given instruction in the filing of this material so that its maximum value may be realized

F Curriculum Construction (doubtful, ordinary, thorough)
The supervisor is a well informed student of current methods of curriculum construction He initiates or cooperates in the making, revising, and interpreting of the course of study The results of his work are evaluated and recognized as an outstanding achievement

G Research (little, average, considerable)
The supervisor knows and observes the principles of scientific method He gives some time to experimentation and research and directs others

in similar activities He encourages the scientific attitude in his teachers He keeps in touch with the research being done elsewhere and is trained in interpretation of the results of experimentation

H Use of Tests and Measurements (ineffectual, helpful, effective)
The supervisor knows the field of measurement, the usefulness of standard tests and their limitations He uses these instruments chiefly for diagnostic purposes

I Use of Demonstration Lessons (ineffective, commonplace, effective)
Demonstration lessons are carefully planned and followed by profitable discussion The supervisor notes observable effects in subsequent classroom performance

J Provision for Professional Study (inadequate moderate adequate)
The supervisor encourages his teachers to take advantage of opportunities for further training when such training seems advisable

K Cooperation with Principals in Supervision (little, limited, considerable)
The supervisor works in cooperation with the principals in regard to supervisory service

L Keeping of Supervisory Records (inefficient ordinary, efficient)
The supervisor keeps an adequate record of his plan of work and the activities utilized in carrying it out He provides for the collection and filing of all data significant to a continuous growth program for teachers and children The amount of time devoted to keeping records does not infringe upon the time which should be spent in more important functions

M Use of Supervisory Records (inadequate passable thorough)
The supervisor makes use of these records in aiding teachers in appraising his own work and in revising his plans to meet the situation more adequately

N Appraisal of Supervisory Activities (little mild, considerable)
The supervisor studies carefully the activities in which he engages in order to find out their value and relative importance This close analysis results in some objective evidence

III *The Supervisor*

A Personality
1 Intelligence (inferior average superior)
2 Leadership (lacking, passive, powerful)
3 Creative ability (lacking, moderate, marked)
4 Poise (unstable, balanced, confident)
5 Tact (blunt, frank diplomatic)
6 Sympathy (cold moderate considerate)
7 Personal appearance (careless, ordinary, particular)
8 Breadth of interest (narrow, limited, wide)
9 Attitude toward life (pessimistic, passive, optimistic)
10 Ability in public speaking (inferior, average, superior)

B General Preparation (meager, passable, extensive)
The supervisor has a liberal education in fields outside that of supervision He reads current publications covering a wide range of interests—books of travel biography, current developments, and general literature He has traveled widely and has acquired various experiences which give him a rich background upon which to draw

C Professional Preparation (meager, adequate, extensive)
The supervisor has had superior professional preparation and has taken courses in general and educational psychology, curriculum construction,

tests and measurements supervision and administration He reads professional magazines and current professional publications, and keeps in touch with important researches

D Professional Experience (inadequate, moderate, extensive)
The supervisor has had much successful experience in teaching and in directing others, or possesses that unusual ability which, when adequately developed, makes extensive experience unnecessary

Although the list given above is now some years old, it is still good

Characteristics of a good superintendent of schools Little has been done in the development of formal rating scales for evaluating the work of the superintendent of schools, but much has been written on the characteristics of a good superintendent A brief check list summarizing certain characteristics of a good superintendent is reproduced below [41]

1 He works with his principals, supervisors and teachers in developing a curriculum that uses community resources and prepares students to take their places in the industrial activities of the community
2 He meets with representative groups in the community or with their officers in order to study the problems of young people and to determine ways in which these organizations can aid in an enlarged out of school educational program
3 He meets with committees of principals, supervisors, and teachers to study curriculum offerings and to make adjustments that appear to be needed in the light of community cultural and vocational standards and requirements
4 He keeps in close contact with the school vocational service counselors activities which are designed (*a*) to anticipate the needs of local home owners, housewives, and business and industrial concerns and (*b*) to determine the abilities and aptitudes of boys and girls, and to help obtain the type of part time or full time work in which they can be of greatest service to the community and in which they are most likely to succeed
5 He serves on the public relation committees of such organizations as the Boy Scouts of America or the Campfire Girls
6 He maintains contact with the civic recreational committee and with young peoples social committees of local churches
7 He cooperates with and helps the public librarian and the public library board in the work of guiding the reading interests of boys and girls
8 He maintains close contact with the county agricultural agent and the vocational agriculture teacher in the school system in their work of guiding the activities of pupils who are transferred from township schools to the city schools under his supervision
9 He concerns himself with the problems of school children who come before the juvenile court or the welfare boards and agencies
10 He identifies himself with the Parent Teacher Association and gives assistance to parents who are trying to solve problems which relate to the activities of their children

Although the list presented above is by no means complete, it should suggest what may be done in these areas The writers believe that such

[41] R R Weaver Check List Showing How to Identify a Superintendent of Education *School Executive*, Vol 62 (June, 1943), p 38

lists should be particularly helpful in self-surveys and as a stimulus to better leadership

Chapter summary It has been the purpose of this chapter to discuss the means of evaluating the effectiveness of the leadership provided in school education The profession has long since become accustomed to the fact that the products of instruction should be more or less systematically evaluated as a means of improving instructional services The basic concept underlying the presentation in this chapter is that a similar approach should be made to the evaluation of educational leadership

Evaluation may be undertaken for many purposes, but we have emphasized the importance of the self-survey as a means of improving the leadership and as a stimulus to continued growth in service In discussing the problems of evaluation five approaches have been considered (1) methods of evaluation involving counting devices, (2) methods of evaluation involving the measurement of pupil growth and achievement (3) methods of evaluation involving the appraisal of important factors conditioning pupil growth, (4) methods of evaluation involving the appraisal of the program developed for the improvement of the instructional services of the school, and (5) methods of evaluation involving the appraisal of the personnel These several approaches all have value in improving the educational service of the modern school and the program designed for the improvement of these services

Discussion Questions

One of the very best ways to study supervision is to study it in operation It is possible in many communities to secure the cooperation of principals teachers superintendents, special supervisors and other members of the school community in planning and evaluating particular programs of supervision To make such evaluations practicable they should extend over a period of at least one school year and preferably over two or three years In order to evaluate the effectiveness of the supervisory program the various instruments employed in the collection of data will need to be applied at both the beginning and the end of the school year The means by which such evaluations may be made are set forth in this chapter

1 New studies of the value of supervision appear from time to time in the literature Prepare a critical analysis of one of these recent investigations indicating its adequacy as to method and results
2 Examine a number of recent school surveys and prepare a critical analysis of the method of evaluation employed Prepare a short question list that the superintendent might use in a self survey
3 Leadership is sometimes evaluated in terms of the qualities of the person providing the leadership What qualities do you consider most essential to effective leadership?
4 When asked if and why supervisors should be rated, teachers sometimes reply 'Yes, because teachers are rated' Tell why this answer is or is not correct
5 Make a summary list of the chief weaknesses and the chief values of the teacher's evaluation of supervision

6. The writers have emphasized in this chapter the importance of the self-survey How may this become an instrument for the improvement of the leadership and continued growth in service?
7. Show clearly how scrutiny of a supervisor's plan or of a superintendent's annual report may afford excellent symptomatic evidence as to the worth or lack of worth of the leadership provided
8. Read rapidly through Chapter 13 in *The Supervision of Instruction* by Barr and Burton Make a brief report indicating the nature and amount of progress which has been made since that chapter was written
9. What is the unique feature of the proposals by Judd for appraising the effectiveness of leadership?
10. Report for class analysis any local survey of educational leadership in which you may have participated

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XVII

Applying Research Methods to the Continued Study of Learning, Teaching, and Supervision

The purpose of supervision as set forth in this volume is to develop the leadership by which pupil growth may be facilitated The growth process is, however, exceedingly complex and is conditioned by many factors Some of these factors are resident in the pupils, some in the teachers who attempt to help pupils, some in the curriculum, some in the materials of instruction, and some in the socio-physical environment for learning It has been the purpose of this volume to present, as far as possible, a practical, scientific survey of the means by which supervisors may study and improve the complex processes and conditions by which pupils learn and grow and by which they attain the purposes of education

Learning, teaching, and supervision must be studied with great care Learning, teaching, and supervision must all be studied with great care because of their complexity It is no exaggeration to say that much that is accepted as true today will doubtless be found to be in error tomorrow Great progress has been made in our knowledge of these fields during the last half-century, and much more can be expected Numerous instances of incomplete or erroneous understanding have been cited throughout this volume, many others have been cited elsewhere It can be generally accepted as a fact that our knowledge in these fields is such that supervisors can wisely proceed only with great care in accepting as true many of the things now generally so regarded

SECTION 1

SOURCES OF TRUTH

The sources of truth enumerated In a final critical view of the field of educational leadership it might be worth while to recall the common sources of truth—the sources to which man has appealed in the past in seeking guidance in a complex world The knowledge that man possesses today is the product of a very slow evolutionary process extending many centuries into the past As his knowledge has grown, so has his under-

standing of the processes by which knowledge may be sought, today the list of the means by which truth may be sought contains many devices unknown to workers in earlier times Of these sources of truth there are six to which reference will be made in the materials to follow (1) personal experience based upon incidental observation, (2) authority, (3) custom and tradition, (4) history, (5) philosophy, and (6) science To refresh the reader s memory about these a brief reference will be made to each

1 Personal experience as a source of truth One of the oldest and most common sources of truth is one's own personal experience based upon incidental observation Most of man's early concepts of himself and of the world of which he is a part must have arisen from this source The advent of science and the scientific method is relatively recent The application of this method to the study of the problems of education is of a still more recent origin dating back not more than fifty years Even today many of the generalizations taught in professional education depend largely upon incidental observation for their support ✓

The limitations of this method as applied to the problems of education arise from the fact that the problems of education are very complex, the conditions limiting educational events are not always readily observable, and the data collected may be highly unreliable resting frequently upon estimates, guesses, and approximation instead of accurate measurements Besides these sources of inaccuracies in reaching judgments from incidental observation, there is a long list of logical fallacies often violated in one form or another The list is too long to enumerate here, but a discussion can be found in any good book on logic, old or new[1] These conditions make the products of personal experience and observation a curious mixture of truth and fancy Notwithstanding these very definite limitations it would appear that with keen minds, trained in the techniques of observation and the rules of good thinking, many worth-while generalizations may be derived from this source of evidence The generalizations of science are nothing more or less than an extension, verification and systematization of the observations of our ordinary experience The plea here, then, is not for the abandonment of personal experience as a source of truth, but for extreme care in its use It should probably always be looked upon as a preliminary source of ideas and not the final yardstick

2 Authority as a source of truth The value of authority as a source of truth depends, of course, upon the authority At best, it seldom exceeds the general cultural level of the best minds of the era from which it arises No one, however, can be expected to know everything, even about teaching As our knowledge of complex phenomena becomes more complete, our dependence upon authority increases rather than decreases, as

[1] Thomas Fowler, *The Elements of Inductive Logic* (Oxford, The Clarendon Press, 1876), xxvii + 360 pp

some would suppose There was probably never a time when we were more dependent upon authority as a source of information and guidance than at present The only difference today is that we call our authorities experts and recognize their fallible character The good teacher may be reasonably expert in the practice of education, but there are still many aspects of education about which his knowledge is very incomplete In these fields of incomplete knowledge, he must either do the best that he can on the basis of his own knowledge or he must consult experts Though teachers may not know everything necessary to discharge the functions of the teacher successfully, the good teacher knows where to turn for expert assistance when he needs it, whether this be in reported research or in first hand personal advice The worth whileness of this assistance will depend upon the expertness of the source of information Supervisors and teachers cannot be too careful in this respect

3 **Custom and tradition as sources of truth** The situation with reference to custom and tradition as a source of truth is not unlike that of personal experience and authority Inasmuch as lack of time prohibits personal research into every problem that arises the individual worker may turn to a specialist for assistance, where no authorities worthy of acceptance exist, however, one may be forced to rely upon custom and tradition for guidance, but with caution and reservation Aside from the practical value of this source of information, it should always be remembered that it is rooted in the past and frequently in a lower level of intellectual development The reason for the existence of any particular custom may have passed long ago, and great harm is done when individuals assume that since certain things have always been done in certain ways in the past they must always be done so Many of our everyday school practices have continued for no reason other than inertia and the lack of better information

The more systematic sources of truth The sources of information discussed up to this point are largely secondary, and valuable as they may be for immediate assistance, they must be substantiated sooner or later by appeals to more systematic investigations for truth Methods of research employed by scholars of history science, and philosophy in all lands are ordinarily thought of as separate and distinct from ordinary experience, authority, custom and tradition, as a matter of fact, they are merely logical next steps in the development of more effective methods of ascertaining truth and provide more effective means of verifying and systematizing the concepts gained from ordinary sources Taken together or separately, they constitute the important present-day sources of truth in its more exact sense

4. **The historical method** History furnishes the vehicle by which one's ordinary experiences may be extended into remote times and places In seeking knowledge of the affairs of everyday life and living, one commonly turns first to ordinary experience, custom and tradition, and

opinions of the times for assistance If the situation to be met is a difficult one, acute and long standing, and if the experiences of those who have struggled with this problem in the past have been preserved, the worker may secure valuable assistance from the records Through the careful examination of these records, or documents, the student of educational problems reconstructs as accurate a picture as possible of the events of the past with their interrelationships thereby enriching his ordinary first-hand experience

External and internal criticism The work of the educational historian is divided into two major fields of operation external criticism and internal criticism

External criticism has for its object the investigation of the transmission and origin of documents in order to produce a sound text In dealing with modern and recent documents the problem is relatively simple, ancient educational documents, however, offer many problems of textual criticism and authorship

Internal criticism, dealing with the meaning, good faith, and accuracy of the author, attempts to reproduce the mental states through which the author passed Many students of education have implicit faith in the printed page, little realizing the inadequacies of language in expressing fine shades of meaning The first function of internal criticism is to determine the *real meaning* of the author Language takes on different meanings at different times and places Note should be made of the following factors affecting language usage

1 Changes due to the evolution of the language itself
2 Variations from one geographical location to another
3 Peculiar usages of the author
4 Changes according to the passage where it occurs

The reader should also be constantly on guard against reading his own opinions into the text

Having determined what the author meant to say the critical historian investigates next the *good faith* of the writer Six motives might lead the writer to violate truth, the author

1 Seeks to gain a practical advantage for himself
2 Is placed in a situation which compels him to violate the truth
3 Views with sympathy or antipathy certain men or events
4 Is swayed by personal vanity or desire to exalt the achievement of a group
5 Desires to please the public
6 Indulges in literary artifices

There are four common reasons for doubting the *accuracy* of the author's statements

1 The author was a bad observer
2 He was not well situated for observing
3 He was negligent or indifferent
4 The facts were not of a nature to be directly observed

In actual practice the process is much shorter than here indicated With experience the critical student of the past develops a kind of "critical sense" or *habit of criticism*

The evidence from history must be accepted with great care Because of the meagerness of documents in some fields of research, the unreliability of many documents, and the complexity of cause-and-effect relationship, the evidence from history must be accepted with great care Few people not engaged in historical research realize the care with which such evidence must be accepted Even in laboratory research with all of its precautions, systematic observation, exact measurements, and controls, it is frequently most difficult to derive reliable information The documents with which the historian must work are ordinarily far less reliable than those of science, historical documents being in the main the products of incidental observation, often haphazardly recorded, and only partially preserved The function of the historian is to preserve for the present and future generations such truth as he can from the records Only through such research may the lessons of the past be brought to bear upon the problems of the present and preserved for future use History, alone, of the many disciplines supplies the means

The value of historical research to the field worker Although history is generally accepted as a valuable subject for study in graduate training, few persons seem fully to recognize its importance to the field worker It serves the same function as experience Almost everything about the school and its practices has a history worth while knowing A newcomer, for example, may observe certain regulations in operation and may belittle their importance They may have outgrown their usefulness it is true, but the careful worker will know that they have a history The relation of the superintendent of schools to the board of education in every community has, for example, a history—such a history that in extreme cases may be worth the superintendent's time to obtain from older residents of the community, old files of newspapers, minutes of meetings, and other documentary evidence Naturally, the field worker is somewhat more concerned with local history than those persons in positions of state, national, or international responsibility No superintendent can serve his community well who does not know its history, traditions, and aspirations Many communities have undergone some profound change industrial, sociological, a change in population, or any one of a number of other changes that may influence the curriculum, the methods of teaching, and the relationship of the school to the community History has an important contribution to make to the thinking of all of those concerned with the school program

Helpful discussions of the historical methods are found in Langlois and Seignobos, *Introduction to the Study of History*[2] or Vincent's *Historical*

[2] C V Langlois and C Seignobos *Introduction to the Study of History* (New York Henry Holt and Company Inc 1898), xxvii + 350 pp

Research[3] A good discussion of the value of historical research as a means of solving educational problems is set forth in Reisner's article, "The History of Education as a Source of Fundamental Assumptions in Education"[4]

5 **Philosophy** Another source of truth, one step removed from history and personal experience, used principally in the study of values, objectives, and the foundations of knowledge, is philosophy It differs from history and ordinary experience partly in content and partly in the conventions of research employed in its pursuit Employing the data of ordinary experience and the documentary evidence of history and science, the philosopher attempts to furnish answers to such difficult questions as "What is truth?" "What are the ultimate goals of life and living?" "What are the best methods of deriving truth?" and the like Many persons philosophize about the ordinary affairs of life, but the trained philosopher is generally concerned with more remote issues such as the foundations of knowledge, the criteria of truth, and first principles The educational philosophers of the present era have been particularly helpful in raising questions about school practices in the light of the ultimate purposes of education, in offering theories of education in terms of their wider knowledge of first principles and history, and in criticizing the techniques of problem solving employed by other workers out of their superior knowledge of logical processes No student of the problems of education can be said to be well prepared for his work in any community who has not had some contact with the classics of this field They supply perspective as historical documents do, and remove one from the present and purely local Philosophy supplies the criteria by which the local may be more adequately evaluated and fitted into the larger patterns of mankind, and, as such, is immensely valuable to the field worker

6 **Science** A third source of knowledge of the more systematic sort is the body of verified knowledge ordinarily referred to as science The scientific method of research, from which this body of information is derived, arrived last upon the scene of problem-solving and represents in many ways a logical next step and refinement of the earlier methods of research It was first employed with the physical science and near the end of the last century extended to the study of the problems of the social sciences, education, and psychology It differs principally from history and philosophy in the kinds of data employed in its research History as we have seen, depends largely upon documents, philosophy, upon both documents and ordinary experience The unique contribution of science is its direct appeal to nature wherein new data may be collected at

[3] J M Vincent, *Historical Research* (New York, Henry Holt and Company, Inc 1929), 350 pp

[4] E H Reisner, 'The History of Education as a Source of Fundamental Assumptions in Education' *Educational Administration and Supervision*, Vol 24 (September, 1928) pp 378 384

any time, presumably with more care, through the use of more refined instruments of measurement, more systematic observation, and, if need be, through artificial controls The first applications of this method to the problems of education, psychology, and the social sciences were to the more simple aspects of these subjects pupil achievement in reading, writing, and arithmetic school retardation, and intelligence testing Within recent years the work has been extended to the study of attitudes, the higher mental processes, and personality Though there is considerable difference of opinion among students of education, psychology, and the social sciences about how far the scientific method can be employed in studying the more complex problems of life, time alone probably holds the answer to this question

SECTION 2

THE FORMS OF SCIENTIFIC RESEARCH COMMONLY EMPLOYED IN THE FIELD OF EDUCATION

A list of the common applications of the scientific methods The application of scientific methods to the study of pupil growth, learning, teaching, and supervision has taken on many forms

1 The normative survey method
2 The comparative causal method
3 The experimental method
4 The genetic method
5 The clinical case study method
6 The covariational method

The last method is sometimes referred to as the statistical method, but this is a misnomer The techniques for determining co-relationship supply the statistics, it is true, but underlying the covariational method is the logical principle of concomitant variation In most instances the so called statistical method is merely a method of treating data collected with the application of the other methods of research

In normative-survey research the purpose is to describe the status of some phenomenon in terms of norms—as, for example, the age training, and experience of elementary school teachers, the types of errors made in arithmetic by elementary-school pupils, the achievement of pupils in different school subjects at different grade levels, and the like The normative-survey method is a method of determining prevailing conditions It seeks to answer such questions as "What is the average daily attendance of pupils in different types of schools and at different grade levels?" "To what extent are the pupils in grade at age, accelerated or retarded at different grade levels?" What is the per pupil cost of instruction in different subjects, and at different grade levels?" "What experiences do parents, teachers, and pupils think are best for pupils at different grade levels?" "What are the kinds, amounts, and quality of books

supplies and equipment found in each of several school buildings?" There are numerous fact questions of this sort that the normative-survey method of research attempts to answer

In a comparative-causal investigation the worker's purpose is to verify some supposed cause-and-effect relationship in something under investigation through application of the logical principle of *agreement* Such investigations are ordinarily made through the systematic observation of phenomena in their natural and uncontrolled state without artificial controls—as, for example, characteristic differences in the teaching performance of good and poor teachers, the mental characteristics of bright and dull pupils, the antecedents of successful and unsuccessful leadership programs, and the like The method furnishes a valuable means of studying the complex problems of education, where the application of the experimental method appears not to be feasible, or the introduction of artificial controls might introduce extraneous antecedents Each of these methods of research has its own characteristic contribution to make to the solution of field problems

In an experimental investigation the worker's purpose is to verify some supposed fact or relationship in nature, through a new appeal to experience, involving the artificial control of the phenomenon under investigation, as in the experimental study of the relative effectiveness of two methods of teaching spelling, the transfer of training under different methods of instruction, and the effect of fatigue upon learning This method has been widely used in studying cause-and-effect relationship, particularly in the laboratory where the conditions surrounding any phenomenon can be greatly simplified and artificially manipulated The method is based upon the logical principle of differences wherein the causes of the appearance and non-appearance of phenomena are traced to the single respects in which the circumstances surrounding these phenomena may differ In recent years the experimental method has been widely used in field research Though valuable in such research, it is not so easy in this field as in the laboratory to apply the law of the single variable upon which this method rests Accordingly it must be employed with great care under the less well controlled conditions of field study

The experimental method of the classical single variable type ordinarily takes on one of three forms (1) the single group method, (2) the equivalent group method, and (3) the rotated group method For a more detailed description of these several methods and a description of how they may be applied to field problems the reader is referred to *The Methodology of Educational Research* by Good, Barr, and Scates,[1] and other standard works in this field

In recent years great progress has been made in developing new experimental designs more generally applicable to the conditions of field re-

[1] Carter V Good A S Barr, and Douglas E Scates *The Methodology of Educational Research* (New York, D Appleton Century Company, Inc 1936) xxi + 882 pp

search The conditions for field research are ordinarily less well controlled than those of laboratory research and the outcomes obtained the result of many factors operating concurrently The best work in this respect has been done in the field of agricultural experimentation [6] where statistical procedures have been developed for analyzing data relative to a number of factors secured concurrently from small, random samples Considerable progress has already been made in applying these techniques to the problems of educational workers [7] The reader is directed to references like those cited below for assistance in this area

In a genetic study the worker's purpose is to trace growth as in child development Experimental and normative-survey studies are cross sectional in character, the genetic study is longitudinal There are many opportunities open to field workers for the use of this method of study, as a matter of fact, they have the best opportunity of all since they have the child normally over long periods of time Genetic studies are usually distinguished from case studies in that they are concerned with the whole child, the normal as well as the atypical In genetic studies one makes a beginning and moves forward, in case studies one observes something undesirable and moves backward to determine the cause or causes or conditions giving rise to the departure observed All children might be studied genetically, socially, physically, and intellectually with more adequate records

In a clinical or case study one's purpose is, as has already been said, to seek the cause or causes or conditions giving rise to some form of atypical behavior The study begins when an important departure of some sort is observed in the behavior of an individual The method is that of working backward as in a case history or contemporaneously as in the exploration of home and community conditions contributing to maladjustment This method has been extensively employed in medical diagnoses and in psychological studies, and more recently, it has been applied to psychology and education It supplies a splendid means of applying all that we know about pupil growth and learning to particular instances of abnormal growth, maladjustment, or unsatisfactory pupil achievement Although ordinarily applied to the atypical, the method is equally applicable to normal growth and learning The steps in diagnostic thinking fundamentals have been set forth earlier in this volume and elsewhere [8]

[6] R A Fisher, *Statistical Methods for Research Workers* (Seventh edition, Edinburgh Oliver and Boyd, 1938) *The Design of Experiments* (Edinburgh, Oliver and Boyd 1935)

[7] Charles C Peters and Walter R Van Voorhis *Statistical Procedures and Their Mathematical Bases* (New York, McGraw Hill Book Company Inc 1940)

E F Lindquist, *Statistical Analysis in Educational Research* (Boston, Houghton Mifflin Company 1940)

[8] A S Barr *An Introduction to the Scientific Study of Classroom Supervision* (New York, D Appleton-Century Company Inc , 1931)

Leo J Brueckner and others *Educational Diagnosis, Thirty-Fourth Yearbook* of the

In co-variational studies one is interested in studying the going-togeth erness or concomitant variation of phenomena The result is expressed as regression equations or as coefficients of correlation The method has been widely used among school people, particularly in studying the more complex problems of education As time goes on new applications are being discovered and new techniques developed For information on the statistics used in these methods the reader is referred to any one of a large number of books relating to the subject of educational statistics

SECTION 3

SOME DISTINGUISHING CHARACTERISTICS OF THE SCIENTIFIC METHOD[9]

Six characteristics are chosen for emphasis When one comes to examine the factual basis for the tremendous prestige and success of the scientific method, one discovers certain characteristics of this method that have given it an advantage over earlier modes of solving problems

In the first place science is based upon observable facts The greatest discovery ever made by man was that the way to determine whether a thing is present or not is to "look and see"[10] Galileo's experiments with falling bodies at the leaning tower of Pisa represented not merely progress in his chosen science but a revolution in thinking Before the advent of science it was common practice, even among the most learned, to attempt to settle pressing contemporary problems by arm-chair philosophizing The application of this simple principle of 'look and see' has been far reaching in its consequences both in its products in terms of new knowledge and in its influence upon our methods of thinking As a consequence even the well trained philosopher today is about as fact-conscious as the scientist

Second, science employs the method of analysis in the comprehension of complex phenomena The natural phenomena with which man comes in contact are exceedingly complex This is particularly true of the subject-matter of education Man's abilities to perceive and comprehend are normally extremely limited, and if he is to comprehend and control the natural phenomena about him, he must employ methods that will bring them within the scope of his thought processes Instead of attempting to comprehend the complex processes of nature at one fell swoop, science attempts to do so by breaking them into comprehensive

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National Society for the Study of Education (Bloomington, Ill., Public School Publishing Co., 1935)

[9] R. D. Carmichael, *The Logic of Discovery* (London Open Court Publishing Company 1930) pp. 30-31

[10] The characteristics of scientific method were discussed in Chapter II also That discussion should be reread in connection with this one since the two treatments complement and amplify each other

units Thus by easy stages, the details of complex phenomena are brought into the focus of attention and made understandable

Third, science employs hypotheses in guiding the thinking process When it becomes clear from our experience, even before all the data have been examined, that a given phenomenon follows regularly upon the appearance of certain other phenomena the mind tends to form tentative judgments about the relationships involved Science has employed this natural tendency of the mind to generalize from the experiences at hand as a means for the systematic study of the relationships of all nature The tentative suppositions formed constitute in science the starting point for further investigation They give point to the search, make it more intelligent, and direct it toward the likely sources of truth It appears from a study of the workings of the mind, that unless we go to nature with some such tentative suppositions we are not likely to learn much We see, as a rule, only those things that we look for As the research progresses, we frequently find it necessary to discard one hypothesis and accept others In this sense hypotheses are merely islands in the stream of thought

Fourth, science is characterized by freedom from emotional bias Much of our ordinary thinking is characterized by all sorts of conscious and unconscious emotional biases that cloud our thinking and keep us from the truth Science attempts to free the mind from these ordinary entanglements and to keep it flexible enough to entertain new ideas In scientific research the worker must not allow his own likes or dislikes to color the facts, he must not close his eyes to new facts and he must not ignore facts contrary to a temporarily entertained hypothesis or point of view

Fifth, science employs objective measurement The lay and untrained worker is prone to rely upon guesses, estimates, and subjective judgment in the collection of the information necessary to the solution of the problems with which he is concerned, the work of the scientist is characterized by the great care with which the data for his judgments are collected In place of the estimates, guesses, and approximations employed in ordinary, everyday problem-solving the scientist employs as exact measurements as possible The progress of science has always been closely related to the development and refinement of instruments of measurement, as the sciences advance, they become more and more accurately quantitative Jevons[11] emphasizes this fact and goes on to say that "Forces hardly suspected to exist by one generation are clearly recognized by the next and precisely measured by the third generation" Nothing tends to promote the advancement of knowledge in a given field of research more than the application of a new instrument of measurement

Finally, science employs quantitative methods in the treatment of data It has already been said that instead of relying upon estimates, guesses

[11] W Stanley Jevons, *The Principles of Science* (Second edition, New York, The Macmillan Company 1924) p 576

and approximations, the scientist measures the phenomena under consideration as accurately as possible With comparable units of measurement the values may be added, subtracted, multiplied, divided, and otherwise treated in a quantitative fashion Instead of relying upon the treacherous verbalism of ordinary language, the scientist employs the new and more exact language of mathematics Beginning with careful study of one aspect of phenomena at a time, he assembles the pertinent data into meaningful categories and summarizes the facts into mathematical values, such as means, medians, modes, standard deviations and coefficients of correlation, which are less ambiguous than the terms of ordinary language The careful measurement of phenomena and the mathematical treatment of the data thus collected are important features of the scientific method

SECTION 4

THE STEPS IN A COMPLETE ACT OF THINKING

A summary of steps in problem-solving The purpose of research is to solve problems To employ the methods of research most effectively the worker should have clearly in mind the steps in problem solving Briefly these steps may be stated as follows [12]

1 A preliminary observation of facts
2 The formulation of a hypothesis
3 The testing of the hypothesis by comparison of its consequences with the results of a careful analysis of the phenomena under consideration

A more detailed enumeration of the steps involved in scientific thinking may be stated as follows

1 The location and definition of a problem
2 Survey of past experiences with the problem, previous investigations, and the already available data to get ideas about past and possible future solutions and methods of investigation
3 The formulation of a hypothesis (or hypotheses) representing a tentative guess as to the best solution of the problem under investigation, to be employed as a guide in the collection of additional data (by step 2 or step 5) which may lead to an accepted solution of the problem or to the formulation of a new hypothesis (or hypotheses) that may be employed in the collection of more data, and so forth
4 The mental elaboration of the hypothesis (or hypotheses) checking for agreement with fact verifiability and logical consistency (The mental elaborations here referred to may end in a belief that the solution is correct or in the formulation of new hypotheses to guide in the collection of new data, and so forth)
5 The collection of additional data (if necessary) through a new appeal to experience by means of measurement, observation and experimentation (The already available data may be incomplete, or collected under conditions that throw doubt upon their trustworthiness, or recorded in terms

[12] Good Barr and Scates, *op cit* pp 14 15

that are ambiguous and subject to many interpretations or misinterpretations, thus making it necessary to collect new data)
6 The analysis, classification, and summarization of the data collected
7 The formulation of new generalizations, explanatory principles, or scientific laws
8 Application use in new situations

The importance of this sequence Few persons who have not thought rather carefully about the scientific method realize the basic simplicity of the preceding outline of steps There must first of all be a problem The first attacks upon the problem will be made doubtless by an appeal to the most available experiences at hand If the problem is difficult, important, and of long standing, the appeal to the experience of the past and to the logic of effective thinking may be more systematic The new appeal to experience (step 5) is made only when the data already available are unsatisfactory The actual methodology of problem-solving may be elaborated almost endlessly, but the framework of scientific thinking is basically simple

Formal versus dynamic logic The operation of the sequence is, however, by no means invariable and inflexible In an actual situation one may sense a problem (step 1), survey certain experiences of the past with reference to this problem (step 2), and reach certain tentative conclusions (step 3) Upon attainment of step 3 the student may return to step 2 and thence to step 3 many times before continuing to the later steps in the sequence Dewey calls this the "shuttlelike" movement of thought which goes on constantly between past experience and the current problems[18] The worker may or may not apply step 4, depending upon the complexity of the problem Steps 5, 6, and 7 will be employed only when a satisfactory solution cannot be derived from steps 1, 2, 3, and 4

The actual process of thought is even more discursive than the foregoing paragraph implies Actual problem-solving-in-process includes innumerable errors and corrections, digressions, discussions ending in blind alleys, the laborious trial of guesses, the tedious processes of validating and evaluating Terms must be defined and redefined, schemes for classifying one's ideas must be made and often scrapped There are analyses, selection, and discrimination of ideas Many, many errors and successes appear before the problem is solved These and many more details are the essence of dynamic logic in contrast to the summaries of formal logic Individuals, children or adults, learn the best methods of proceeding, of avoiding errors by discovering these things within their own problem-solving processes As soon as sufficient experience has been secured, progress may be expedited through verbal discussions of more mature logical forms

[18] John Dewey, *How We Think* (Boston, D C Heath and Company 1910 revised 1933)

Formal logic which produces sets of rules and "steps" for the guidance of thinking was formulated by mature thinkers who have had much experience with thinking Looking back over many problem-solving experiences, they have been able to formulate canons and safeguards, to identify and to describe typical errors and pitfalls, to identify and to describe certain valid procedures Formal logic is the logic of thought completed, not that of thought-in-process, it is the logic of proof, not that of discovery or creation Descartes, as early as 1637, distinguished between that logic which was useful in explaining to others what is already known and that logic which appears in learning something new This distinction, however, did not affect education until comparatively modern times Increasing attention is now given to "dynamic' logic,[14] that is, the logic of inquiry or process in contrast to the logic of proof or of post-procedural inquiry

An outline of process complementary to the outline of "steps' is presented

1 A situation for which the answer is not known but can be found a situation which challenges the individual to seek the answer

2 A period of inquiry, long or short, as the case may be, in which the confused indeterminate situation is transformed into a unified and determinate one

- *a* Plans are made and remade, abandoned adopted
- *b* Terms and limits are defined and redefined
- *c* Suggestions arise from many sources and are deliberately sought for in others
- *d* Discussions, arguments, differences of opinion, exchanges of fact and belief take place
- *e* Digressions blind alleys useless suggestions and leads intermingle with valid and conclusive items
- *f* Careful inferences from data, hunches, insights and bold guesses intermingle with one another
- *g* Much time is consumed, and much scrapped thought is characteristic errors indicated in previous points are not always recognized immediately, nor are the correct leads, right or wrong points must often be pursued for some time before validity or lack of it is determined many schemes for analysis, for comparison, for organization are made, improved, or abandoned
- *h* Devices for testing, checking, evaluating, appear from the very beginning are laboriously constructed, corrected, abandoned, adopted (This list is not exhaustive)

3 A conclusion is formulated, checked, and corrected, and stated in terms referring directly to the problem as finally defined

[14] Authoritative accounts of dynamic logic will be found in Dewey, *op cit*, revised edition Three new chapters in this edition present in detail the differences between formal and dynamic logic John Dewey, *Logic, The Theory of Inquiry* (New York Henry Holt and Company, Inc, 1938)

The beginning student may read a simple account in W H Burton, 'The Guidance of Major Specialized Learning Activities Within the Total Learning Activity (a pamphlet, published by the author, Cambridge, Mass 1941) pp 1 17

The complementary character of history, science, and philosophy Much is heard these days about the relative merit of history, science, and philosophy as methods of solving the problems of education A careful examination of the sequence of steps in a complete act of thinking, as given above, would seem to indicate that much of the discussion is quite pointless As a matter of fact, all three of these methods are involved in any systematic attempt to solve the problems of education, and there is little gained in arguing over the relative merits of what are really three essential parts to a common whole Any appeal to experience (step 2) which takes one beyond the personal reproduceable experiences of the present is an appeal to history Seldom can the more complex problems of education be solved without some use of history The review of previous investigations in scientific research is an appeal to historical research, however poorly such reviews may be conducted from a historical point of view Historical research may be thought of as a part of a complete act of thinking or as an end in itself The worker may find this part of research interesting and so important that he specializes in it and spends a lifetime at it, and if he does so, he becomes an educational historian Workers who specialize in steps 1, 2, 3, and 4 are ordinarily known as educational philosophers Using all the data that are available from personal experience, science, and history, the educational philosopher attempts to solve the more complex problems of education through the use of the same reasoning processes employed by the scientist and historian If the data available are adequate for the solution of the problem at hand, the research is terminated with step 4 If not, the research is continued through steps 5, 6, and 7 particularly when and if the application of these steps appears feasible and appropriate to the problem under investigation The pursuit of steps 5, 6, and 7 and the ensuing techniques, is ordinarily referred to as scientific research Whether the scientific method should be described as the application of steps 5, 6, and 7 or the entire sequence is somewhat open to discussion, but it must be apparent in any case that history, science, and philosophy are all bound up in a single complete act of educational problem-solving With this strong conviction in mind we turn now to a more detailed discussion of steps in the problem solving process

The recognition and definition of a problem The first step in problem solving is the location of a problem, a felt need, or difficulty The problem for investigation should be one within the experience of the worker and one that he feels is important To certain people, in certain situations, some problems are more important than others If, however, many persons, over long periods of time, recognize a problem as more or less urgent or as basic to the solution of other problems, the research worker may solve not only a problem of immediate value to himself in his practical situation, but one of value to others as well For this reason, it is wise to look about, talk with others and examine the literature in the

field relative to the problem before coming to a final choice of a problem or problems for further investigation What may appear important to some particular situations may not appear so to others In any event, sharp definition is essential

Once a problem has been chosen for investigation the next step is to define it as clearly and as accurately as possible People manifest great individual differences in this respect Some very complacent individuals never see any problems at all Some feel vaguely that something is wrong, but appear incapable of any very definite location of the difficulty There are, however, some persons with keen analytical minds who see clearly and define sharply the difficulty at hand The most common mistake of the average field worker is that he ordinarily chooses too complex a problem for investigation The very complex situation may be a problem all right, but before such situations can be mastered, they must be better defined and broken up into sizable tasks Too frequently the field worker hopes to solve by a single investigation the kind of problem that can be solved only by many investigations He will profit by writing out the several sub-elements involved in the solution of the problem and by preparing a definite schedule of investigation The solution of a complex problem is much surer if the worker attacks small units of it one at a time

McCall has said very much the same thing when he distinguishes three types of formulators of problems The first, he says, "flutters in all directions and flies in none The second type McCall designates as the "pot-hole type His is the opposite error, he defines, but so narrowly that his problems are isolated He cannot relate his minute findings to the larger implications The third is the scholar who sees both his major problem and the minute minor researches that must be worked out in the process of solving his major problem

The survey of already available data The second step in problem-solving is the survey of the already available data A very common mistake made by the novice in educational research is to assume that the problems he senses as important are unique and hitherto unstudied Though not all of the problems of education have been recognized before, many of them have been previously recognized and many have been more or less systematically investigated Before turning to the collecting of new data it is always well to survey as carefully as time permits the data already available for the solution of any problem The already available experiences with the problem under investigation may be found in the experiences of one's colleagues, in previous investigations, or in critical comments preserved in various documentary sources The collection of new data according to the conventions of scientific research is a laborious process and should be resorted to only after a careful study of available information [15]

[15] See Good Barr and Scates, *op cit* for further assistance

The formulation of hypotheses As has already been said, the mind has a tendency when confronted by some complex situation to form explanatory suppositions very early in the examination of the data These first suppositions, tentative generalizations, or scientific guesses are usually referred to as hypotheses Jevons states three characteristics of a good hypothesis as follows

1 A good hypothesis must allow for the application of deductive reasoning and the inference of consequences capable of comparison with the results of observation
2 A good hypothesis must not conflict with any laws of nature which we hold to be true
3 In a good hypothesis, the consequences inferred must agree with facts of observation

The hypothesis furnishes a valuable aid to the search for truth by simplifying the investigation and by directing the attention of the worker to significant aspects of the phenomena under investigation

The logical development of the hypothesis One of the characteristics of a good hypothesis, as pointed out, is its amenability to deductive reasoning, which may be checked as informally or as formally as one desires The formal checking of hypotheses may involve much that has been learned in the study of logic and syllogistic reasoning A second type of checking that goes forward at this point is the checking of newly formed hypotheses for logical consistency We have said that a good hypothesis must not conflict with any law of nature that we hold to be true If such inconsistencies do arise, one or the other of the conflicting statements held to be true must be discarded Finally, a good hypothesis must be in agreement with fact The development and evaluation of different hypothesis should be made with great care

Null hypothesis As educationalists have become more accustomed to the careful study of educational problems, more refined techniques have been developed One such new development has been the application of the *null hypothesis* to educational problems In applying the *null hypothesis*[16] one starts with the assumption that the two (or more) samples being studied have been drawn from the same homogeneous population, that is, there could be no difference between them except those arising from chance fluctuations This is the *null hypothesis* as applied to differences This assumption is tested by determining the sampling distribution of the statistic under investigation and the probability that a statistic deviating as much as that found in the observed sample may have arisen from random sampling In practice this last step

[16] Helen M Walker *Elementary Statistical Methods* (New York, Henry Holt and Company Inc, 1943)
Fisher *op cit*
Lindquist, *op cit*
Peters and Van Voorhis, *op cit*

is routined by the development of tables from which the needed values are easily read It probably should be said before leaving this discussion that the hypothesis is put in this form to make possible a more precise mathematical check of it and not necessarily because one believes it to be true in *this* form Some workers accustomed to the more conventional hypothesis have had trouble with the *null hypothesis* on this score, but this difficulty should readily pass with experience in its use This method of stating hypotheses will doubtless come to have wide use in the field of educational research

The collection of new data If at the end of steps 1, 2, 3, and 4, a satisfactory solution to the problem under investigation has not been derived, a new appeal to experience may be necessary, and new data may be collected through the use of better instruments of measurement, more systematic observation, and better controls The purpose of the new appeal to experience is to get better data if possible, whereby the problem under investigation may be studied more systematically and with greater accuracy It may result in the collection of data with greater reliability, or the collection of data with reference to hitherto unstudied aspects of the problem under investigation The worker hopes, if time permits, to make his present investigations complete enough and accurate enough if possible to preclude the necessity for further investigation When the worker falls short of this goal, his data once collected and reported merely becomes part of the already available data that constitute the background for future investigations in this field

The use of observation and experimentation in the collection of new data The standard means by which new data are collected are those of *observation and experimentation* By the use of systematic observation or systematic observation plus experimentation the worker hopes to collect new data that are better than those already available Since these two methods of collecting data are those commonly employed in scientific research, it may be worth while to speak about them in more detail in order to get a better idea of their use in research

Observation Educational conditions must be systematically observed according to some definite and adequate plan of procedure Numerous and accurate observations must be recorded in carefully defined terms, definite statements, or objective measurements An excellent statement is found in Thomson's *Introduction to Science* [17]

> The fundamental virtues are clearness, precision, impartiality, and caution Common vices are rough and ready records, reliance on vague impressions acceptance of second-hand evidence, and picking the facts to suit Since observers are fallible mortals, we readily understand the importance of cooperation, of independent observation on the same subject, of instrumental means of increasing the range and delicacy of our senses, and of automatic impersonal methods of registration such as that supplied by photography

[17] J Arthur Thomson, *Introduction to Science* (New York, Henry Holt and Company, Inc., 1911) p 64

Observation is an everyday process It seems simple The average individual resents the charge that he is not observant Good observation however, is, a difficult affair To have seen an event does not guarantee at all that the observer knows what happened Westaway sums up briefly two of the chief obstacles to accurate observational report [18]

But even with the closest attention, our observations may be entirely incorrect Any one of our organs of sense is easily deceived a fact which enables the magician to make his living Then it is seldom that we see the whole of any event that occurs a cab and a bicycle collide and half a dozen "witnesses," all perfectly honest may—probably will—give accounts which differ materially and may be mutually destructive It is always difficult to keep fact and inference distinctly apart In the middle of the night we hear a dog bark in the street But really all that we hear is a noise, that the noise may come from a dog, and that the dog is in the street, are inferences, and the inferences may be wrong For instance, a boy may be imitating a dog, and everybody knows how easily the ear is deceived in regard to the direction of sound It is almost impossible to separate what we perceive from what we infer, and we certainly cannot obtain a sure basis of facts by rejecting all inferences and judgments of our own, for in all facts such inferences and judgments form an unavoidable element Even when we seem to see a solid body occupying as it does, space in all dimensions, we really see only a perspective representation of it, as it appears depicted on a surface Our knowledge of its solid form is obtained by inference A clever painter may deceive us even here

Few facts of psychology need to be stressed more than those concerning the inaccuracy of observation reports A common "stunt" in college psychology classes is to enact a brief series of events before the class requiring immediately afterward a complete written account of what happened Important events in the little drama will be missing from many accounts None of the accounts will agree in all details Some events which did not occur are frequently sworn to by some observers Flatly contradictory statements appear between papers and sometimes even in the same paper The senses are deceived, we are not able to separate facts from thoughts about facts We constantly hear the remark, 'I know it is the truth, I saw it with my own eyes!" Such a statement is no guarantee whatever that the account is a true one

Many teachers resent the idea that an outside observer can analyze events in their classrooms more accurately than they can themselves But this is quite possible if the observer is highly trained and the teacher is not It is interesting to watch the reactions of a group of experienced but untrained teachers to a demonstration lesson The list of points which they wish to discuss or ask about is soon exhausted The expert then takes charge of the discussion Astonishment and bewilderment appear on many faces as fact after fact is brought to light, and as shade, nuance, and subtlety of teaching are pointed out which were not even

[18] F W Westaway, *Scientific Method Its Philosophy and Practice* (Third edition London Blackie and Son Ltd 1919) p 195

observed in the large by the untrained observers These teachers are perhaps all earnest, experienced workers, but untrained in observation On the other hand, of course, many teachers of experience and careful habit of mind are good observers, and their reports are largely reliable For purposes of scientific study, however, careful training in observation under controlled conditions is necessary

Experimentation It is not always possible to determine by observation alone what conditions are operative The purpose of experimentation is to assist in the collection of facts The object of an experiment is to get one or more conditions under control We experiment to isolate and examine singly the several contributory conditions We arrange for purposes of *observation* that a certain thing shall happen under certain *controlled conditions* A fundamental rule in experimentation is to vary only one circumstance at a time, and to maintain all other circumstances rigidly unchanged Much of the success of a scientific worker often depends upon his ingenuity in thinking out crucial tests or experiments Generalization may be verified by controlled experiments by repetition of experiments, or by gathering additional data The data may also be reexamined and appraised by the application of numerous statistical procedures Possible sources of error in method, materials, and apparatus should be carefully scrutinized The scientist tries to achieve completeness of investigation, accuracy of statement and the elimination of intellectual and emotional bias Thomson gives three examples of how scientists have verified their tentative formulations [10]

When bacteriology was still in its infancy, and Pasteur was still fighting for his discovery that putrefaction was due to the life of micro organisms in the rotting substance, he put his theory to a crucial test which is continually repeated nowadays as a class experiment or for practical purposes in the preservation of various foods He took some readily putrescible substances, sterilized them by boiling and hermetically sealed the vessel No putrefaction occurred

When Von Siebold and his fellow-workers had convinced themselves indirectly that certain bladderworms, for example those which occur in the pig and the ox, were the young stages of certain tapeworms which occur in man they made the crucial and almost heroic experiment of swallowing the bladderworms By becoming soon afterwards infected with the tapeworms they proved the truth of their theory

Or let us take a simple case where the method of exclusion is combined with a control experiment The fresh water crayfish has a sense of smell, as is proved by the rapid way in which it retreats from strong odors Investigation led to the hypothesis that this sense was located in the antennules or smaller feelers This was verified by observing that a crayfish bereft of these appendages did not react to a strong odor whereas—here the control experiment comes in—in exactly the same conditions and to the same stimulus another crayfish with its antennules intact did actively respond Pursuing precisely the same two methods the investigator proved that the seat of smell was in peculiarly shaped bristles on the outer fork of the antennules

[10] Thomson *op cit*, pp 71 72

The distinction between observation and experiment J Arthur Thomson sets forth clearly the distinction between observation and experiment [20]

> The distinction between observation and experiment is not of much importance In the former we study the natural course of events, in the latter we arrange artificially for certain things to occur The method of experiment saves time, and we can make surer of the conditions In studying the effect of electric discharges on living plants, it would be worse than tedious to wait for the lightning to strike trees in our vicinity, so we mimic the natural phenomena in the laboratory In studying phenomena like hybridization, we are obviously on much surer ground with experiment than with observation in natural conditions
>
> Alterations in the conditions of occurrence which it might be difficult or impossible to arrange in nature can be readily effected in the laboratory It is thus possible to discover which of the antecedents are causally important Cattle begin to die of some mysterious epidemic disease, bacteria are found to be abundant in the dead bodies, it is conjectured that the disease is bacterial Some of the bacteria are peculiar, and it is observed that they occur in all the victims The hypothesis is made that this particular species of bacterium is responsible for the disease But since the epoch making experiments of Koch which showed that *Bacillus anthracis* is the cause of anthrax (splenic fever, or wool-sorter's disease in man), no one dreams of stopping short of the experimental test The suspected bacillus is isolated a pure culture is made, this is injected into a healthy animal, and if the disease ensues, the proof is complete

Of course experimentation is not always possible, we must then rely upon carefully controlled observation

Analysis and classification of data In many cases the collection of data is a simpler process than the development of productive classifications There is an infinite number of points of view from which facts may be arranged The arrangement should not grow out of some incidental characteristic of the data, but out of fundamental relationship likely to produce results One might, for example, classify a library according to the size of books, the color of the books, or the weight of the books But such classifications would not be productive Bain in setting forth what constitutes a good classification, gives the following rule "Place together in classes the things that possess in common the greatest number of attributes"

In studies of pupil population the error was made in early days of analyzing and classifying the data in terms of but one characteristic, for instance age or grade level We may and should analyze the same data from many angles, each of which may reveal something of vital importance For instance in Burton's [21] study of children's civic information the data were analyzed in terms of grade level, race or nationality, economic status of the home, area of residence, and sex The grade levels included

[20] *Ibid*, pp 69 70

[21] W H Burton *Children's Civic Information*, 1924 1935 University of Southern California Education Monographs No 7 (Los Angeles Calif, University of Southern California Press, 1936)

five different analyses Seven groupings were set up under race and nationality The areas of residence included three contrasting areas in large cities, and rural areas The urban and rural areas were duplicated in widely separated districts over the nation In addition further analyses were made of a half-dozen sources of information used by the children The final analysis was of differences between similar children over a period of ten years Thus nearly thirty different methods of analyzing and classifying the same data were used Only in this way can all implications be revealed

In another study [27] a large number of pupils had been hopefully classified by a prominent school system as homogeneous on the basis of age, ability to learn, social maturity, achievement, and other academic items Outside analysts discovered that the pupils as grouped were actually far more homogeneous on the basis of the economic level of the homes from which they came In other words one means of studying the pupils which had been overlooked was actually the most powerful factor in determining similarity

The statistical devices—frequency tables, curves, graphs, and the like—are not ends in themselves but means to ends They should bring out likenesses, differences, processes, causes, and results not otherwise observable

Westaway, on the analysis of phenomena says [28]

If then such erroneous associations remain unsuspected, and we proceed to reason from the underlying 'facts' our reasoning will probably be fallacious The necessity for disentangling our facts thus becomes evident It has been well said that progress in scientific investigation depends much more on that severe and discriminating judgment which enables us to separate ideas that nature or habit has closely combined, than on acuteness of reasoning or fertility of invention Whenever two subjects of thought are intimately connected in the mind, it requires the most determined effort of attention to conduct any process of reasoning which relates to only one

Since one of the main objects of science is to ascertain the laws which regulate the succession of events in nature the investigator has constantly to deal with different events presented to him nearly at the same time, and he has therefore to be particularly careful that phenomena closely connected in time do not mislead him into thinking that they are necessarily invariably conjoined The disposition to confound together accidental and permanent connections is one great source of popular superstitions—palmistry, phrenology, planetary influence, haunted houses, miraculous wells, unlucky days, and so on Such combinations are confined, in great measure, to uncultivated and unenlightened minds, but there are other accidental combinations which are apt to lay hold of the minds of even the very ablest of investigators

We have already seen that when a phenomenon is preceded by a number of different circumstances we cannot determine, by any *a priori* reasoning which of these circumstances are to be regarded as the constant, and which the accidental, or antecedents of the effect If, in the course of our experience, the

[27] W H Burton and Ewing Konold, Unpublished materials, University of Southern California

[28] Westaway, *op cit*, pp 225 ff.

same combination of circumstances is always exhibited to us without any alteration, and is invariably followed by the same result we must necessarily remain ignorant whether the result be connected with the whole combination or with only one or a few of the circumstances combined, and therefore, if at any time we wish to produce a similar effect, there is no alternative but to imitate in every particular circumstance the combination which we have seen

Let us suppose, for instance, that a savage who, on some occasion had found himself relieved of some bodily ailment by a draught of cold water, is a second time afflicted with a similar disorder and is desirous of repeating the same remedy With the limited degree of knowledge and experience which we have here supposed him to possess, it would be impossible for the greatest of modern investigators, in his situation, to determine whether the cure was due to the water which was drunk, to the cup in which it was contained, to the fountain from which it was taken to the particular day of the month, or to the particular age of the moon In order therefore to ensure the success of the remedy, the savage will, very naturally and very wisely, copy as far as he can recollect, every circumstance which accompanied the first application of it He will make use of the same cup, draw the water from the same fountain, hold his body in the same position, and turn his face in the same direction, and thus all the accidental circumstances in which the first experiment was made, will come to be associated equally in his mind with the effect produced The fountain from which the water was drawn will be considered as possessed of particular virtues, and the cup from which it was drunk will be set apart for exclusive use on all future similar occasions

The fact that analysis is one of the distinguishing characteristics of the scientific method has already been emphasized From one point of view the topic of analysis belongs more appropriately under the heading of collection of data than with classification or summarization of data Some analysis of a phenomenon, and the circumstances surrounding it, into elements, constituents, or factors must precede any attempt to control the given factors for experimental purposes Though this is true, analysis is also an important phase of the classification and summarization of data In the classification of data one assembles data of like characteristics A chair, a table, a couch, and a rug may all be thought of as household furniture and assigned to this category They are also manufactured articles and may be classified as such The types of categories constructed in the classification of data will depend, of course, upon the phenomena under investigation, and the purposes of the research in progress The contribution made by the summarization of data to scientific thinking is the economy of thinking brought about by the assemblage of a multitude of facts into a single whole If one collects a larger number of data about some phenomenon, it becomes correspondingly difficult to retain them in mind as the number of facts increases Instead of attempting, for example, to retain the individual IQ's of 300 elementary-school children, it ordinarily serves one's purpose better to calculate the *mean* IQ Likewise, one might calculate through the use of appropriate statistical methods the spread of talent, the relationship of one trait to another, etc The special economies arising out

of such treatments of the data have given rise to the subject of educational statistics Before one progresses very far in the scientific study of the problems of education, one must have mastered at least the rudiments of statistics It is a major function of statistics to furnish research workers with economical and effective means of analyzing, classifying, and summarizing data

The formulation of conclusions The final step in scientific method is the summing up into a formula, sets of statements or a new theory as concisely as possible the facts observed The formulation must conform to the facts and must be verifiable The work of the scientific student of education should be characterized throughout by a passion for facts, by cautiousness of statement, and a clearness of vision

It may be objected that the illustrations of various phases of scientific method given above are from fields other than education Illustrations from the physical sciences were selected for two reasons First scientific method in the physical sciences is much older than it is in education, and as a consequence much better illustrations of the general procedure of science are available Although many excellent illustrations can be found in education, despite the short time the method has been used in that field, those of the physical sciences represent a maturity characteristic of an older science

In the second place many of the illustrations from the physical sciences are classics, known generally to scientific workers They require no elaborate explanations They should be equally well known to scientific students of education It is hoped that in the near future, illustrations from education will be equally well known A few educational experiments have already become famous and are recognized as standards of procedure Some of those studies are referred to later in this chapter

SECTION 5

ILLUSTRATIVE APPLICATIONS OF THE METHODS OF SYSTEMATIC INVESTIGATION TO THE STUDY OF THE PROBLEMS OF EDUCATIONAL LEADERSHIP

One can learn from the researches of others We have in the foregoing sections of this chapter attempted to indicate, first, the chief source of truth in the consideration of educational problems second the methods of systematic investigation employed by educational research, and finally, the mental steps in problem solving With the hope that the systematic study of the problems of this field might be furthered, we should like now to turn to some of the fairly typical investigations in this field which may point the way to better means of studying the complex problems of education Though it is not our idea that teachers and supervisors should keep the school system in a constant state of turmoil through their attempt to do research, it is our opinion that the good of the child does

rest ultimately upon having in the schools the student type of teacher and educational leader No individual who is content to leave the situation as he finds it, will serve the schools best in the long run The processes of education are very complex, and there is much more to be done before the work of the school can be said to be even reasonably effective In thinking over one's problems and how to solve them it sometimes helps to examine those of others and what has been done to solve them With this thought in mind reference will be made to some previous studies of the problems of education, with the hope that the methods employed in these investigations may illustrate the possibilities for further research in these and other fields of investigation

Illustrative applications of the historical method of research to the problems of educational leadership Good applications of the historical method of research to the problems of educational leadership are not easy to find There are numerous textbooks and general surveys available based for the most part on secondary sources but there are few critical studies of selected problems, men events, movements, and periods growing out of the careful study of original sources Some of the best illustrations of research in this field can be found in the field of legal research Edwards' [24] *The Courts and the Public Schools* will be found to be a good source of illustrative research of this type Seybolt's [25] *The Public Schools of Colonial Boston,* Suzzallo's [26] *The Rise of Local School Supervision in Massachusetts,* and Jernegan's [27] *Compulsory Education in the American Colonies* are good examples of historical studies of the more critical sort A splendid general survey of the social ideas of American education has been prepared by Curti [28] Burton's [29] study of the history of problem-solving is a good illustration of the application of the historical method to a selected educational problem

A good view of previous researches in this field will be found in the October 1936 and 1939 issues of the *Review of Educational Research* [30]

[24] Newton Edwards *The Courts and the Public Schools* (Chicago University of Chicago Press 1938)

[25] Robert F Seybolt *The Public Schools of Colonial Boston, 1635 1775* (Cambridge Mass Harvard University Press 1935)

[26] Henry Suzzallo *The Rise of Local School Supervision in Massachusetts* Contribution to Education No 3 (New York Bureau of Publications Teachers College Columbia University 1906)

[27] Marcus W Jernegan Compulsory Education in the American Colonies, *School Review,* Vol 26 (December 1918) pp 791 719 Vol 27 (January 1919) pp 24 43

[28] Merle Curti *The Social Ideals of American Educators* Report of the Commission on Social Studies American Historical Association Vol 10 (New York, Charles Scribner's Sons 1935)

[29] W H Burton The Problem Solving Technique Appearance and Development in American Texts,' *Journal of Educational Method,* Vol 14 (January, February and March, 1935), pp 189 195 248 253, 338 342

[30] Newton Edwards and others 'History of Education and Comparative Education' *Review of Educational Research* Vol 6 (October 1936) pp 353 456

M M Chambers and others History of Education and Comparative Education, *Review of Educational Research,* Vol 9 (October 1939), pp 333 348

Illustrative applications of the philosophical method of research to the problems of educational leadership Philosophical research may take on any one of a number of forms Most generally it has concerned itself with the criteria of truth, with values and the ultimate goals of life and education and the criticism of current practice There are numerous studies of a philosophical character available in American education The best known of the writings in this field are those of John Dewey, America's foremost leader in this field His works touch upon almost all the aspects of this field of research as ordinarily conceived Bode's[31] *Modern Educational Theories* or his *Conflicting Psychologies of Learning* are excellent illustrations of critical analysis of the philosophical sort Curti[32] furnishes a good example of the combined historical and philosophical methods of research in his very valuable survey of the social ideas of American educators Finney[33] offers a good treatment of the sociological foundations of educational theory There are any number of critical surveys of the new education in the literature of education that the student of philosophical research may find interesting The studies by Childs,[34] Raby,[35] and Taba[36] are excellent illustrations of the better analysis of the new education

Illustrative applications of the scientific method to the study of educational leadership As has already been said the scientific method may take one of a number of forms (1) normative-survey research, (2) comparative-causal research, (3) experimental research, (4) genetic research, (5) case studies, and (6) co-variational studies Several illustrations of these applications of the scientific method are given in the materials to follow

The normative-survey method There are many investigations of the normative survey type available in the literature of education An extensive survey of the literature in this field can be found in *The Methodology of Educational Research* by Good Barr, and Scates[37] Book's[38]

[31] Boyd H Bode *Modern Educational Theories* (New York The Macmillan Company 1927)

—— *Conflicting Psychologies of Learning* (Boston D C Heath and Company 1929)

[32] M E Curti *The Social Ideas of American Educators* (New York Charles Scribner's Sons 1935)

Also see Robert Ulich *Conditions of Civilized Living* (New York, E P Dutton & Company Inc 1946)

[33] Ross L Finney *A Sociological Philosophy of Education* (New York The Macmillan Company 1928)

[34] John L Childs, *Education and the Philosophy of Experimentation* (New York D Appleton Century Company Inc, 1931)

[35] Sister Mary Joseph Raby, *A Critical Study of the New Education* (Washington D C, Catholic University of America, 1932)

[36] Hilda Taba *The Dynamics of Education* (New York, Harcourt Brace and Company 1932)

[37] Good Barr, and Scates *op cit*, pp 286 481

[38] William F Book *The Intelligence of High School Seniors as Revealed by a State Wide Survey of Indiana High Schools* (New York The Macmillan Company 1922)

The Intelligence of High School Seniors, the Charters-Waples [39] *Commonwealth Teacher-Training Study*, Davis' [40] "The Teaching Problems of 1075 Public School Teachers," Jersild's [41] 'Characteristics of Teachers Who Are 'Liked Best and 'Disliked Most'," Orleans and Saxe's [42] *An Analysis of the Arithmetic Knowledge of High School Pupils* and Brownell and Carper's [43] *Learning the Multiplication Combinations*, are good illustrations of studies of the normative-survey type

Applications of the comparative-causal method of research Applications of the comparative-causal method of research are by no means as plentiful as those of the normative-survey or experimental methods Reavis' [44] *Factors Controlling Attendance in Rural Schools*, Barr's [45] *Characteristic Differences in the Teaching Performance of Good and Poor Teachers of the Social Studies*, and Wilson's [46] *Learning of Bright and Dull Children* may be taken as illustrative of the work in this field The first of these studies may be taken as a good illustration of the application of the logical principles of *agreement* with some applications of statistical procedures, and the remaining two studies are applications of the logical principle of *double agreement* The comparative-causal method of research may be found helpful in exploratory studies of very complex phenomena such as those which come up in the field of education and supervision The number of studies employing the comparative causal techniques seems to have increased slightly in recent years [47]

[39] W W Charters and Douglas Waples *The Commonwealth Teacher Training Study* (Chicago University of Chicago Press 1929)

[40] Robert A Davis The Teaching Problems of 1075 Public School Teachers *Journal of Experimental Education* Vol 9 (September 1940) pp 41 60

[41] Arthur T Jersild 'Characteristics of Teachers Who Are Liked Best and Disliked Most' *Journal of Experimental Education* Vol 9 (December 1940) pp 139 151

[42] Jacob S Orleans and Emanuel Saxe *An Analysis of the Arithmetic Knowledge of High School Pupils* City College Research Studies in Education No 2 (New York School of Education, The College of the City of New York 1943)

[43] William A Brownell and Doris V Carper *Learning the Multiplication Combinations* (Durham N C, Duke University Press 1943)

[44] George H Reavis *Factors Controlling Success in School Attendance*, Contribution to Education No 108 (New York, Bureau of Publications Teachers College Columbia University 1920)

[45] A S Barr, *Characteristic Differences in the Teaching Performance of Good and Poor Teachers of the Social Studies* (Bloomington, Ill, Public School Publishing Company, 1929)

[46] F T Wilson *Learning of Bright and Dull Children*, Contribution to Education No 292 (New York Bureau of Publications, Teachers College, Columbia University 1928)

[47] Robert H Koenker 'Certain Characteristic Differences Between Excellent and Poor Achievers in Two Figure Division' *Journal of Educational Research*, Vol 35 (April, 1942) pp 578 586

Myrtle Luneau Pignatelli *A Comparative Study of Mental Functioning Patterns of Problem and Non Problem Children Seven, Eight, and Nine Years of Age*, Genetic Psychology Monographs Vol 27 (Provincetown Mass The Journal Press, 1943), 91 pp

Beatrice Lantz and Genevieve B Liebes, A Follow up Study of Non-Readers," *Journal of Educational Research*, Vol 36 (April, 1943), pp 604 626

R Nevitt Sanford and others, *Physique, Personality, and Scholarship* (a comparative

Applications of the experimental method to the study of educational problems As has already been said the application of the experimental method according to the classic single variable type of research may be any one of three sorts of experimentation (1) single-group, (2) equivalent-group, and (3) rotated-group The experimental method has been widely employed in the field of education, and many applications of this method will be found in the literature of education

Applications of the single-group method of experimentation Any one of a number of studies of pupil changes made over a period of years through repeated applications of measurement to the same group is an application of this method Baldwin's [48] several studies of physical growth and Brooks' [49] *Changes in Mental Traits with Age* may be taken as good illustrations of this type of research

Applications of the equivalent group methods of experimentation There are many illustrations of the use of the equivalent-group method in the literature of education The *Journal of Educational Psychology* the *Journal of Educational Research*, the *Journal of Experimental Education* and many others contain reports of research of this sort J Wayne Wrightstone's [50] *Appraisal of Newer Elementary School Practices*, Pistor's [51] "Appraisal of an Enterprise in Progressive Education" and Breidenstine's [52] "The Educational Achievement of Pupils in Differentiated and Undifferentiated Groups" may be taken as more or less typical of the studies in this field dealing with important problems of classroom instruction Examples of a more psychological character can be found in Garrett's [53] *Great Experiments in Psychology*

Applications of the rotation method There are many examples of the rotated method of investigation in the literature of education Good examples of the application of the rotation method made some years ago are Heck's study of mental fatigue and Stevenson's [54] investigation of the effectiveness of large and small classes Heck studied mental fatigue in

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study of school children) Society for Research in Child Development (Washington D C National Research Council 1914)

[48] Bird T Baldwin, *Physical Growth of School Children* (Iowa City Iowa, University of Iowa Press 1919)

[49] F D Brooks *Changes in Mental Traits with Age* (New York Bureau of Publications, Teachers College Columbia University, 1921)

[50] J Wayne Wrightstone *Appraisal of Newer Elementary School Practices* (New York, Bureau of Publications, Teachers College Columbia University 1938)

[51] Frederick Pistor "A Valid Scientific Appraisal of an Enterprise in Progressive Education, *Journal of Educational Research*, Vol 28 (February 1935), pp 433 449

[52] A G Breidenstine "The Educational Achievement of Pupils in Differentiated and Undifferentiated Groups, *Journal of Experimental Education*, Vol 5 (September, 1930) pp 91 135

[53] Henry E Garrett, *Great Experiments in Psychology* (New York, D Appleton-Century Company Inc, 1930)

[54] W H Heck, *A Study of Mental Fatigue* (Lynchburg, Va J P Bell Co, 1913)
P R Stevenson Smaller Classes or Larger A Study of the Relation of Class Size to the Efficiency of Teaching, *Journal of Educational Research* Monograph (Bloomington, Ill Public School Publishing Co, 1923)

relation to the daily school program Stevenson compared the effectiveness of teaching in classes of thirty and forty-five pupils respectively Both large and small classes were taught during the first semester At the end of the first semester fifteen pupils were taken from the larger class and added to the smaller Thus larger and smaller classes were subjected to approximately identical conditions, save for the element of size More recent illustrations of the same technique can be found in studies by Reeder,[55] Hudelson,[56] Barr,[57] Dynes,[58] and others

The experimental method has been extensively used in the sciences Some of the most successful laboratory studies in the field of education have been made at the University of Chicago by Freeman,[59] Buswell,[60] and Judd [61] Examples of the new-type experimental design will be found in studies by Osborn,[62] Souder,[63] Stuit and Donnelly,[64] Spencer,[65] Hansen,[66] and Treacy [67]

Applications of these newer techniques need to be made with care Many of the studies employing this newer technique have made erroneous applications [68]

Application of the case-study method Probably no method of research has proved more generally helpful to the field worker than the case study

[55] E H Reeder *A Method of Directing Children's Study of Geography*, Contributions to Education No 193 (New York Bureau of Publications Teachers College Columbia University, 1925)

[56] Earl Hudelson *Class Size at the College Level* (Minneapolis, Minn University of Minnesota Press, 1928)

[57] A S Barr and J S Park, An Experimental Study of Functional Learning *Journal of Experimental Education* Vol 1 (September 1932) pp 9 17

[58] J J Dynes Comparison of Two Methods of Studying History" *Journal of Experimental Education* Vol 1 (September 1932) pp 42 45

[59] Frank N Freeman *The Handwriting Movement*, Supplementary Educational Monographs (Chicago University of Chicago Press 1918)

[60] Guy T Buswell *An Experimental Study of the Eye Voice Span in Reading* Supplementary Educational Monographs, No 17 (Chicago University of Chicago Press 1920) 106 pp

[61] Charles H Judd and Guy T Buswell, *Silent Reading*, Supplementary Educational Monographs No 23 (Chicago University of Chicago Press, 1923)

[62] Wayland W Osborn, 'An Experiment in Teaching Resistance to Propaganda *Journal of Experimental Education* Vol 8 (September 1939) pp 1 17

[63] Hugh Cowan Souder, The Construction and Evaluation of Certain Readiness Tests in Common Fractions ' *Journal of Educational Research*, Vol 37 (October, 1943) pp 127 134

[64] Dewey B Stuit and Mary Carroll Donnelly, "Performance in the Iowa Qualifying Examination of Majors in Various Academic Departments with Implications for Counseling *Journal of Experimental Education*, Vol 8 (March, 1940), pp 298 299

[65] Edward M Spencer, The Retention of Orally Presented Materials ' *Journal of Educational Psychology*, Vol 32 (December, 1941) pp 641 655

[66] Carl W Hansen, 'Factors Associated with Successful Achievement in Problem Solving in Sixth Grade Arithmetic," *Journal of Educational Research*, Vol 39 (October, 1944), pp 111-118

[67] John P Treacy 'Relationship of Reading Skills to the Ability to Solve Arithmetic Problems,' *Journal of Educational Research*, Vol 39 (October, 1944), pp 86-96

[68] Paul Blommers and E F Lindquist, "Experimental and Statistical Studies Applications of Newer Statistical Techniques, *Review of Educational Research*, Vol 12 (December 1942), pp 501 520

method The chief advantage of this method is that it furnishes a means of studying the problems of education under the less well-controlled conditions of the classroom

There are many illustrations of the use of this technique in the literature Probably a careful study of the investigation, by Gray,[69] Smithies,[70] Zachry,[71] Young,[72] and Traxler[73] will illustrate as well as any others, the applications of this method of research The reports contain materials on both the several characteristics of the case-study method and illustrative cases

Applications of the genetic method to the study of the problems of education As has already been said, the genetic method has been used extensively in the biological sciences in the study of growth and development The applications of this method to the problems of education have been largely to the growth and development of children Many studies have been carried on in this field, but probably the best of these are the earlier studies by Baldwin[74] and the more recent studies by Lincoln,[75] Gesell,[76] Jones,[77] and Shuttleworth[78] Each of these investigators has carried on his investigation over a sufficiently long period of time to indicate clearly the benefits to be derived from this sort of research Offering, as it does, a longitudinal view of the developmental process, the method is an exceedingly valuable one in the study of pupil growth and development and the attending problems of classroom instruction and educational leadership

Application of the co-variational method As has already been pointed out earlier in this chapter, the statistical method supplies both a means of treating the data collected through applications of the other methods of research and a means of research in itself The best illustration of the latter will probably be found in the correlation studies that have been

[69] William S Gray *Remedial Cases in Reading*, Supplementary Educational Monographs, No 22 (Chicago University of Chicago Press 1922)

[70] Elsie M Smithies, *Case Studies of Normal Adolescent Girls* (New York, D Appleton Century Company, Inc , 1933)

[71] Caroline B Zachry, *Personality Adjustments of School Children* (New York, Charles Scribner's Sons 1929)

[72] Pauline V Young, *Social Case Work in National Defense* (New York Prentice Hall, Inc , 1941)

[73] Arthur E Traxler, *Case Study Procedures in Guidance* (New York Educational Records Bureau, 1940)

[74] Bird T Baldwin, *The Physical Growth of Children from Birth to Maturity*, University of Iowa Studies in Child Welfare Vol 1, No 1 (Iowa City) Iowa University of Iowa, 1921)

[75] E A Lincoln, *Sex Differences in the Growth of American School Children* (Baltimore Md , Warwick and York, 1927)

[76] Arnold Gesell, *The Mental Growth of the Pre School Child* (New York, The Macmillan Company, 1925)

[77] Harold E Jones, *Development in Adolescence* (New York D Appleton-Century Company, Inc 1943)

[78] Frank K Shuttleworth, *The Physical and Mental Growth of Girls and Boys Age Six to Nineteen in Relation to Age at Maximum Growth* (Washington, D C Society for Research in Child Development, National Research Council, 1939)

so common in the field of education The method is really a quantitative application of the logical principle of concomitant variation A careful study of Kelley's [79] *Educational Guidance An Experimental Study in the Analysis and Prediction of Ability of High-School Pupils,* Whitney's [80] *The Prediction of Teaching Success,* Segel's [81] *Differential Diagnosis of Ability in School Children,* Lycia O Martin's [82] *The Prediction of Success for Students in Teacher Education,* or Barr [83] and others, *Measurement of Teaching Ability* should help those who think that they might be interested in this type of research Treatments of the theory of correlation research can be found in any good book on statistics [84] The use of this method has spread rapidly during the last five or ten years, and it offers an effective means of research for those mathematically inclined

Sources of information relative to other studies of educational problems We have referred, in the immediately preceding pages of this chapter, to certain materials illustrating how the various methods of research have been applied to the study of educational problems Besides the specific studies cited, there are certain general sources of research materials with which the student should be acquainted The effort needed to keep abreast of developments is not great

Possibly the best single source of information will be found in the *Review of Educational Research,* which publishes periodic summaries of research on all important aspects of education The *Encyclopedia of Educational Research* is an excellent, easily available summary The United States Office of Education also publishes an annual *Bibliography of Research Studies in Education* Illustrative materials will be found in the *Journal of Educational Research, Journal of Experimental Education, Journal of Educational Psychology, Journal of Applied Psychology,* and *Educational and Psychological Measurement,* publishing only research materials, and in other educational journals such as the *School Review, School and Society,* and the *Elementary School Journal,* publishing an occasional research report Every serious student of education should

[79] Truman L Kelley, *Educational Guidance An Experimental Study in the Analysis and Prediction of Ability of High School Pupils,* Contributions to Education No 71 (New York Bureau of Publications, Teachers College Columbia University, 1914)

[80] F L Whitney, *The Prediction of Teaching Success* (Bloomington, Ill , Public School Publishing Co 1924)

[81] David Segel, *Differential Diagnosis of Ability in School Children* (Baltimore, Md , Warwick and York, 1934)

[82] Lycia O Martin *The Prediction of Success for Students in Teacher Education,* (New York, Bureau of Publications Teachers College, Columbia University 1944)

[83] A S Barr and others *The Measurement of Teaching Ability* (Madison Wis , Dembar Publications, Inc , 1945)

[84] Henry E Garrett, *Statistics in Psychology and Education* (Second edition, New York, Longmans Green & Co , 1941)

Karl J Holzinger, *Statistical Methods for Students in Education* (Boston, Ginn and Company, 1928)

Lindquist, *op cit*

Peters and Van Voorhis, *op cit*

Walker, *op cit*

know and use constantly Monroe's [88] *Encyclopedia of Educational Research Psychological Abstracts* may be consulted for summaries of research relating to the psychological foundations of educational practice, the *Educational Index,* found in all libraries, supplies an over-all source of titles and authors that may be consulted for titles not found in the references already cited

SECTION 6

THE PRODUCTS OF EDUCATIONAL RESEARCH AND THEIR USE

The products of educational research Before leaving the discussion of the methods of educational research, it might help to consider briefly the products of research and their uses The outcomes are many, and while it is not our purpose to discuss these outcomes here in any detail, some reference to them seems desirable as a guide to those who would engage in the systematic study of the educational program and its improvement Summarized briefly they are as follows

1 Facts, principles, generalizations and concepts that constitute the immediate findings of research studies
   - *a* Schools differ in their holding power
   - *b* The cost of elementary school instruction varies from state to state
   - *c* Individuals differ in mental capacity
   - *d* There are physiological limits to the acquisition of manual skills
   - *e* Girls mature physiologically faster than boys
   - *f* Meaningfulness is an essential condition for effective learning
   - *g* Learning is facilitated by the establishment of a goal in the mind of the learner
   - *h* The discernment of form structure or organization facilitates learning
   - *i* Knowledge of progress is an essential condition for effective learning
   - *j* Success should attend the learning activity
   - *k* Acceleration is desirable for mentally superior high-school students
   - *l* Good leadership promotes pupil growth
   - *m* Activity learning is effective under certain conditions
   - *n* The adjustment of school children is affected by home conditions
   - *o* The schools should provide socializing experiences
   - *p* There should be development of the basic concepts of all-round pupil growth, belongingness, appropriateness readiness and efficiency

2 The clarification of assumptions, such as
   - *a* Methods of research used in studying physical phenomena are applicable to the study of human and social phenomena
   - *b* Universal education is feasible and desirable
   - *c* School support can be equalized
   - *d* Performance is an adequate index of ability
   - *e* Statistical findings have value in dealing with individuals

3 Definitions
   - *a* Of terms, such as *incidental, functional, behavior, experience,* and *maturation*

[88] Walter S Monroe and others editors *Encyclopedia of Educational Research* (New York, The Macmillan Company, 1941)

b Of objectives, such as those the attainment of which promote mental health and adjustment, social efficiency, physical fitness, and ethical ideals

4 Techniques that are a source of ideas about evaluative procedures survey, case study, experimental, genetic, and those for handling documentary evidence

5 Steps in training in problem-solving discovering and defining the problems, clarifying issues, designing of evaluative procedures, analysis of data, and generalizing and summarizing findings

6 Development of attitudes such as caution in reaching conclusions, open mindedness in considering conflicting hypotheses, willingness to "look-and see," suspended judgment, and the desire to base judgments upon facts

The foregoing outline has been introduced here merely for illustrative purposes No attempt has been made at completeness, enough has been said, however, to recall to the reader's mind some of the more important outcomes that may accrue from programs of school research With this over-all view of the products of research, we turn now to a discussion of the uses of research findings

The use of research findings for improvement purposes Although there is need for continuous study of the crucial problems of education, there is already available a sizable body of verified facts and principles, more than is being used The lag between theory and practice appears always to be great, only a small part of what is known seems to have been put to use in the development of more effective procedures some of what is known is buried in technical publications seldom consulted by field workers, many of whom lack the skill to read and understand the research literature of education, the implications of research findings for field practice are not always clear, and there is always too considerable inertia The problem of acquainting the field workers with and getting them to make use of the findings of research is a complex one

Finding the research Reference has already been made to certain guides that may be employed in finding educational research literature The problem is not merely a mechanical one It is partly one of knowing what is pertinent Sometimes even those who earnestly "seek" pass over as not applicable or as inconsequential facts and principles that have great significance for practice As a matter of fact most of the great truths of life have been obviously apparent to those who were willing to and could see It is fairly safe to assume that the mere fact of publication of a research report in a reputable source suggests at least some merit to the ideas reported even though the implications for school practice may not be readily discernible Many of the very best materials will be found in the more technical philosophical, historical, statistical, and psychological journals Many of the contributors to these publications have a genuine interest in applications, they have chosen the problems that they have reported upon because they consider them fundamental to

practice The form of reporting may be difficult at times for the "uninitiated" to follow, but it has been adopted in part by a sincere desire to express research findings precisely

Synthesizing the findings Ordinarily one will use some card or notebook system in gathering and recording important ideas It is usually important to record the source of information with sufficient completeness that the original source can be readily located if the necessity arises of returning to the original report for additional information or to reexamine the conclusions, the data, the methods of their collection, and the character of the analysis The findings from various reports within the same area of research frequently seem to be in conflict The conflict may be real and apparent, real and not apparent, or not present at all Much that will seem, from a superficial examination of research reports, to be in conflict will disappear upon closer examination The problems are not alike, the procedures are different, the samples and populations studied differ in some important respect, and the conclusions though differently stated may be identical With reference to the last point, it should probably be urged that even though the same language is employed by different persons in reporting conclusions, meanings may vary Some system of recording is usually necessary to the careful synthesis of research findings

Development of a program of action The goal toward which we all strive is an improved program of educational services This program will be found only in part in the findings of historical, philosophical, and scientific research Only in the exceptional case will the field worker find all the parts put together into a functioning whole The findings of research are ordinarily summarized in the form of important facts and principles To put these facts and principles to work in better services one must create or discover suitable techniques Sometimes these techniques will be found in the reports of the original research, ordinarily there will be many more techniques implied than those actually employed in the original researches This reaching out aspect of research is frequently overlooked The creative imagination necessary for the implementation of research findings is of no less importance than that demanded by the original researches themselves The problem is to put old techniques together in new ways or to devise wholly new ways of doing things, to the end that more effective combinations of human effort may be devised It is the hope of all those that devise improvement programs that improved results may accrue from them

The evaluation of service programs We have already discussed in Chapter XVI the means of evaluating the larger improvement program, and in Chapters VIII, IX, and X, the evaluation of the program as it relates to teacher growth, the curriculum, and the socio-physical environment for learning There will also be many times when one will want to evaluate specific improvement programs The methods for making such

evaluations have been discussed in the preceding pages of this chapter The evaluations of synthetic programs here referred to will frequently be in the form of reevaluations The many parts of which a particular improvement program is composed may have been systematically studied in either field or laboratory or both If the parts have been previously studied under the artificial conditions that prevail in the laboratory they must be restudied under field conditions,[86] since generalizations established under laboratory conditions do not necessarily hold true under field conditions, if the parts have been evaluated piece-meal, even under field conditions, they must be revaluated as functioning wholes The whole is not merely a sum of its parts, or said differently, the arrangement of parts is always an important part of the whole Accordingly all syntheses and implementation of research need, therefore, to be restudied under field conditions

The translation of research findings into programs of action Early in 1943 a group of Southern educators and research specialists was appointed by the American Council on Education as a committee on Southern Regional Studies and Education[87] to conduct a study of the ways in which schools through education can help the local community in the better utilization of their natural resources The study is based upon the assumption that it is not a lack of research, but a lack of adequate translation of research results that hinders community development The committee conceived of its work as developing in three phases

The first phase involved a wide exploration of the problems affecting and the resources available for such an undertaking, the second phase consisted of a work conference composed of outstanding educators and research specialists from eleven southern states, and the third phase involved further research in line with the recommendations of the conference

The committee examined the programs of organizations which for some time successfully produced instructional materials to fit certain types of educational needs in this area They reviewed such projects as the Arkansas state program for textbook production, the Sloan experiment in applied economics being carried on in Kentucky, the University of Virginia's New Dominion Series of pamphlets, the Citizens' Fact-Finding Movement of Georgia, and the Cooperative Research Translation in the Tennessee Valley These programs were varied both in interests and sponsorship, but it seemed to the committee that the most important characteristic of all of them was their experimental approach Evaluation of the effectiveness of materials is the only way in which

[86] John Dewey *The Sources of a Science of Education* (New York, Horace Liveright 1929)

[87] John E Ivey, Jr *Channeling Research into Education*, A Report of the Committee on Southern Regional Studies and Education of the American Council on Education (Washington D C, American Council on Education, 1944)

accurate appraisal and subsequent validation can be demonstrated The committee recognizes itself as having eight major functions [88]

1 To stimulate establishment of educational materials-producing facilities for resource education by state agencies, institutions of higher learning, and local schools In cooperation with representatives of these agencies, conferences or institutes might be held to explore need, opportunity, and procedures for producing educational materials
2 To keep informed and to inform others regarding the preparation of educational materials under way or contemplated in the region Helpful procedures might consist of preparing and distributing a monthly or bimonthly news letter or the writing of special columns for state educational journals
3 To keep informed and to inform others concerning regional research completed and in progress Periodically selected bibliographies of research materials on regional resource development and problems, or kits containing some of the latest research units might be distributed to states and institutions and schools within the states
4 To assist in arranging for technical assistance and other aids for state agencies and for bureaus supported by states Upon receiving requests for technical assistance, the central agency could by serving in liaison capacity, bring technically trained men in various subject-matter fields to bind their efforts to specific tasks Travel funds or consultant's fees might be made available
5 To arrange for regional conferences and institutes to study problems in resource education and research translation By calling together research specialists and educators to work on specific materials or to draw procedures for materials, the central agency would provide a new channel for a union of research and education
6 To assist in arranging for the production publication, distribution, and use of educational materials The central agency's staff would promote programs which view production, distribution, and use of materials as continuous and functionally related processes Coordinated programs and objectives could be achieved through work with state textbook commissions, commercial publishers teacher-training institutions, and in-service training programs through cooperation of state departments of education, institutions of higher learning and local schools
7 To assist in organizing state integrated programs for translation of research into educational materials These programs would be realized through coordinated execution of the function mentioned above By encouraging the centralization of responsibility for producing needed materials, the central agency could assist in getting states to create the hub around which an integrated program might turn
8 To encourage and facilitate the coordination of the work of existing regional and subregional committees or associations as their efforts relate or might relate to the translation and use of educational materials Conferences which would permit representation of the various regional agencies to coordinate their activities could also allow those groups to consult with state and local agencies on their resource education and research translation programs

Committees such as the one described above can do much toward the translation of research findings into effective school programs

[88] *Ibid*

SECTION 7

THE ORGANIZATION AND ADMINISTRATION OF RESEARCH PROGRAMS

Plans of organizing and administering research There are many different methods of organizing and administering research In the first place research may be either privately or publicly administered There are many important privately organized and administered research agencies such, for example, as those of the great educational foundation, the bureaus maintained by large privately endowed universities, and those maintained by education associations Many publicly supported governmental agencies also have research facilities, such as state and city bureaus of educational research Then, research may be organized and administered on a local, state, or national basis Many cities and states, as well as the federal government, maintain publicly supported research services Most state teachers associations, for example, maintain bureaus of educational research as does the National Education Association Finally the function of research may be centralized in a bureau of research, spread among the many technical services that make up the staffs of the large modern school systems, or it may be assigned to the entire school personnel, as the tendency seems to be toward wider participation in research on their part Studies by Chapman,[80] Herbst,[90] Monroe,[91] Mort,[92] and Scates[93] are illustrative of those discussing the organization and administration of research

The functions of city and state bureaus of educational research The functions of city and state bureaus of educational research vary widely Some devote nearly all their time to mental and achievement testing others, to child accounting statistics, and yet others to budget making and school finance, textbook accounting, salaries, buildings and other administrative problems Within recent years much attention has been given to the curriculum, visual aids, guidance, and clinical activities of one sort or another The specialists added to the staffs of city and state school systems in these areas have frequently been well equipped technically and interested in evaluative activities in their special fields While the many routine services performed by city and state bureaus of edu-

[80] H B Chapman, *Organized Research in Education with Special Reference to the Bureau of Educational Research* Bureau of Educational Research, Monograph No 7 (Columbus, Ohio, Ohio State University Press, 1927)

[90] R L Herbst Functions of Bureaus of Research *Journal of Educational Research*, Vol 24 (December 1931) pp 372 376

[91] Walter S Monroe and others, Ten Years of Educational Research 1918-1927,' Bulletin No 42, Vol 25 No 51 (Urbana, Ill , Bureau of Educational Research University of Illinois, 1928)

[92] P R Mort, Organization for Effective Educational Research in Colleges and Universities,' *Teachers College Record*, Vol 37 1935, pp 541-558

[93] Douglas E Scates, Organized Research in Education National, State, City and Universities Bureaus of Research, *Review of Educational Research*, Vol 9, 1939, pp 576 590, 635 646

cational research have cut heavily into their time, many too have found time to assist with the study of important problems in the field of learning, teaching, and supervision

The importance of adequate records Good school research depends upon the development of good records No other agency has just the same opportunity for good research as does the school itself where improvement needs and problems are anticipated and collection of pertinent data routinized There are many long-standing problems of education such as those relating to child guidance, child accounting, the curriculum, pupil adjustment, special education, personnel administration, school finance, buildings, supplies and equipment The services in these and other areas need careful study To provide the kinds of information needed to answer many of the questions that arise in these areas there must be considered foresight and planning, a part of which will relate to the development of an adequate system of records

The development and use of time-saving devices Many time-saving devices have been developed in the field of education Although educationalists in general have probably not been so alert to the developments of short cuts and time-saving devices as have been workers in other areas, progress has been made (1) in the development of time-saving data gathering devices, (2) in the development of time-saving recording devices, and (3) in the development of mechanical aids to the statistical analysis of data Although much has been done in the first and second of these areas, the development in the third has been more spectacular but probably not more important Today when one collects data one attempts to anticipate both its use and the conditions under which it will be collected An honest attempt is ordinarily made to save the time of all concerned Improved methods of recording, and the substitution of machine labor for hand labor has saved some time The cost of research has been reduced by the invention of mechanical tabulators, calculating machines, scoring machines and other aids

Cooperation in educational research As educationalists have gained more experiences with research techniques and problem-solving, they have become more aware of the conditions essential to a fruitful attack upon educational problems One of these, already referred to earlier in this chapter, is the development of methods of analyzing educational data more in keeping with the complexity of the educational undertaking The development of adequate records has just been emphasized The development of techniques for group actions[84] is another movement that should aid educationalists in studying complex educational problems Group action has many advantages in addition to that of saving time and getting things done (1) it makes possible the development of the "team" mind so essential in the comprehension of complex phenomena, (2)

[84] Frank N Freeman, 'Cooperative Research with Adequate Support' *Journal of Educational Research* Vol 34 (January 1941), pp 321 326

it provides a multiple check upon error, (3) it makes possible long-time developmental and follow-up studies not possible under individual leadership, (4) it makes possible the study of some of the more important, fundamental, and complex problems of education, and (5) it provides a broader base upon which to build improved practice through including more people The trend is toward more cooperation in research, not only by large foundations, state and university research centers, but by city bureaus and individual researchers

Problems for further research It has been the practice of the past volumes in this series to conclude with some statement of the problems in need of further research Such lists of the problems of education as related to the teacher and his contribution to the educative process will be found in an earlier volume of this series by Barr and Burton,[95] *The Supervision of Instruction,* and another by Barr,[96] *An Introduction to the Scientific Study of Classroom Supervision* It has been the purpose of the present volume to supply a much more comprehensive treatment of supervision, learning, and teaching than that supplied by the earlier volumes in this series As a consequence the discussion has been extended to include all of the more important factors conditioning the outcome of the educative process To supply a list of the problems associated with this more comprehensive treatment of the problems of supervision and the improvement of teaching would mean the preparation of a very extensive list of these problems including all those relating to the many factors conditioning learning Space does not permit the inclusion of this list in an already very lengthy treatment of this subject, the reader is referred to a volume by Good Barr, and Scates,[97] on *The Methodology of Educational Research* This volume should also furnish a valuable handbook of research for workers in this field

Chapter summary We have attempted to emphasize in this chapter the complexity of the learning-teaching act and the necessity for exercising great care in the determination of facts and principles in this field What may appear to be facts at first thought, and so accepted, may not be facts at all In man's intellectual journey from savagery to what we now call civilization he has employed a number of devices for obtaining essential information about himself and the world in which he lives His first and foremost method of getting ideas is from personal experience In time these ideas gave rise to custom, tradition, authority, history, and philosophy In recent years the means of seeking truth from experi-

[95] A S Barr and W H Burton *The Supervision of Instruction* (New York, D Appleton Century Company, Inc, 1926) pp 608 615

[96] Barr, *An Introduction to the Scientific Study of Classroom Supervision, op cit*

[97] Good, Barr, and Scates, *op cit* See particularly Appendix I

Monroe and others, editors, *op cit*

Review of Educational Research, published five times a year (February April, June, October, December) by the American Education Research Association, a department of the National Education Association

ence have been greatly refined to make the observation of phenomena more systematic, the discrimination of material and immaterial factors more accurate, the recording of truth more generally understood One of the most effective devices yet to be invented by man for discovering and verifying truth is what is commonly called the scientific method, many forms of which will be found in the literature of education The more important of these forms have been discussed in this chapter with illustrative materials for those who desire to employ these methods for further research The advantages of the scientific method arises for several reasons (1) its knowledge is depersonalized and removed from personal bias (2) its generalizations are based upon observable facts, (3) it employs analysis in the comprehension of otherwise incomprehensible complex phenomena, (4) the formation of tentative judgments (hypotheses) to direct the search for truth has proved helpful, and (5) it has employed objective measurement in collecting and treating data instead of the less accurate method of ordinary thought There is apparently little point in arguing their relative merit in the solution of education problems since they are all part and parcel of a complete act of thought in which each makes its own peculiar contribution Science represents one of the most advanced mental achievements of man history and philosophy, however are closely related with it in problem solving and should be so recognized The trend today is toward the use of many techniques in large cooperative studies of the problems of education

Discussion Questions

1 Read carefully pages 68-88 in *The Methodology of Educational Research* by Good Barr Scates, paying particular attention to pages 82 85

- *a* Restate any one of the items in Group I so that it becomes a properly worded legitimate problem
- *b* Note how the items in Group II have been restated in proper form For any of the original items in Group II state another problem which might be derived from it These various items are susceptible to several restatements
- *c* If possible illustrate from your own experience a typical restatement exemplified in Group III
- *d* List two or three legitimate problems which might be found in the areas given in Group IV

2 Glance through Appendix I in the same volume

- *a* Select a group of so called problems which are really areas instead of problems as in Group IV above This is probably the commonest blunder made in stating problems Tell why these are areas and not problems
- *b* Select a group in which the problems are fairly well stated and defend your choice
- *c* Select another group in which the problems are really problems and not areas but are not particularly well stated Defend your choice

3 Select a subdivision of education of major interest to you and list at least four problems requiring investigation Indicate also whether any of the problems stated by you have been prominently discussed in the literature within a year

4 Take any one of the problems you have just stated State it as accurately and as definitely as you can Set forth in some detail the procedures which would be necessary in solving it

5 Prepare a brief but adequate working bibliography on your problem Indicate in addition the various types of sources for this bibliography

6 Select an adequate historical study in the field of education Analyze it in terms of the principles of historical research

a Critically evaluate the sources used by the writer Indicate their adequacy

b Illustrate and critically evaluate his internal and external criticism

c Critically evaluate his clarity of presentation and organization

7 Prepare a questionnaire on some problem upon which you are working or upon which you would like to work Preferably it should be mimeographed and tried out on the class for critical evaluation A small group as well as individuals may work on this problem

8 Assume that you wish to make a study of total time budgets of 500 teachers who have agreed to cooperate with you for one month Devise a set of categories in which you would like them to report Set up your own purpose for this study, then select and evaluate your categories in the light of the purpose Several class members might work on this independently and submit various lists for class analysis

9 If possible an individual or small group should secure adequate data on the socio-economic status of some group of pupils in a convenient school The class itself might be used as a basis, the material to be turned in without signatures Use any of the current techniques

10 A class committee may apply a typical building score card to some nearby building Several groups may compare results Class discussion

11 Several students should utilize any of the current techniques for interviewing, trying them on a small number of persons The purpose and topics may be selected by the individuals If two students can be found who are willing the technique of interviewing might be illustrated before the class

12 Select any first class investigation illustrating any of the typical scientific methods After identifying as to type, prepare a highly critical analysis covering the following points

a Adequacy of the problem as to scope and truly problematic nature

b Competence in the statement of the problem

c The assumptions and hypotheses involved

d The isolation of a variable and the control of other variables

e The categories and techniques of analysis of data

f The objectivity, reliability, and validity of the procedure

g The interpretation and significance of the results

13 Select a recent city survey report Analyze it for competence of procedure adequacy of data, and validity of conclusions

14 List the factors which make the application of scientific method to educational problems unusually difficult

15*a* If there is a research bureau in your school system or if research is being carried on by any individual or group in the absence of a bureau report briefly on one or two things which have been accomplished by this bureau (If you cannot answer this, take *b* below)

b If you have no research bureau or independent effort in your school system, report instead on any important problem in your system which you would like to submit to scientific attack if time and means permitted Indicate briefly the method of attack that would be proper

16 Express your opinion as to the desirability, possibility, or weaknesses of teacher participation in research

17 Outline the means by which a very small school system without a central staff or much money could carry on some scientific work

18 Read pages 134 to 137, "Science versus Opinion" in Burton, *Introduction to Education* Duplicate from your own experience the contradictions there illustrated between honest opinion and the facts

NOTE The *Second Yearbook* of the National Department of Supervisors and Directors of Instruction is valuable reading to accompany this chapter

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APPENDICES

APPENDIX A

A Brief Summary of Background Materials Concerning the Current Curriculum Movement

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SECTION I

ABBREVIATED OUTLINE OF HISTORIC CRITICISMS OF COURSES OF STUDY AND CURRICULUMS

A serious obstacle to educational progress is the tendency among certain teachers, educational leaders, and public figures to decry and to oppose current efforts to improve curriculums 'Curriculum reorganization is a passing fad" "The curriculum of the past has stood the test of time, why meddle with it?" "Men now successful in business or in scholarly fields were prepared by the standard curriculum of the past' (The only one they could get!) The "good old days" were better than the present with its uncertainty, its experimentation, its critical discussions Persons taking this stand are clearly manifesting an ignorance of simple historical facts, an ignorance so naive as to be almost infantile Criticism of and change in curriculums and methods of teaching have been continuous from the beginnings of recorded history The succession of criticisms and changes illustrates a fact of basic importance the continuity of effort to bring curriculums into line with changing social needs, into line with ever greater knowledge of the educative process Opposition to change in education borders close upon dangerous stupidity

Criticism began early Curriculums which existed many centuries before the Christian era were evidently unsatisfactory to some citizens Clay tablets representing some of the most ancient civilizations contain statements from exasperated parents and tax-payers similar in tone to statements made during the intervening 5000-6000 years A few almost duplicate word for word criticisms appearing in the current press

Confucius writing in the fifth century B C made a statement which would be accepted today by many persons

> The teachers of today just go on repeating things in rigmarole fashion, annoy the students with constant questions, and repeat the same things over and over again They do not try to find out what the students natural inclinations are, so that students are forced to pretend to like their studies, nor do they try to

bring out the best in their talents What they give to the students is wrong in the first place and what they expect of the student is just as wrong As a result, the students hide their favorite readings and hate their teachers, are exasperated at the difficulty of their studies and do not know what good it does them Although they go through the regular course of instruction, they are quick to leave when they are through This is the reason for the failure of education today

Approximately one thousand years later, St Augustine indicates that all is not well within the school

At enim vela pendent liminibus grammaticarium scholarum, sed non illa magis honorem secreti quam tegumentum erroris significant

(True it is, that there are curtains at the entrance to grammar schools, but they signify not so much the cloth of a state of privacy, as serve for a blind to the follies committed behind them)

About seven hundred years later and still three hundred years before America was discovered, Peter of Blois (circa 1200) holds forth in very modern tone

Quid enim prodest illis expendere dies suos in his quae nec domi, nec militiae, nec in foro, nec in claustro, nec in curia, nec in ecclesia, nec alcui prosint alicubi, nisi dumtaxat in scholis?

(For what does it profit them to spend their days in these things which neither at home, nor in the army nor in business nor in the cloister, nor in political affairs, nor in the church, nor anywhere else are any good to anyone—except only in the schools)

Another five centuries pass and Rousseau's *Emile* (1762) appears containing vigorous criticism and proposals for reform Herbert Spencer's famous essay, "What Knowledge Is the Most Worth," published in 1859 was a devastating attack upon the British secondary schools, pointing out that nothing whatever could be found in those schools which prepared the young Englishman to understand and to participate in the life of the great empire he was to inherit The ancient world, its history and classic literature, dominated the curriculum to the exclusion of the new industrial and scientific world The everyday activities of parents, homemakers, and breadwinners received no attention whatever If our civilization were to decay and its records be studied later by archaeologists, said Spencer, it would have to be assumed that our whole curriculum was for celibates! More than half a century after Spencer's strictures, the survey of a city in the United States revealed that about nine times as much attention was given to Roman life, customs, and citizenship as to the same topics concerning the United States

Under a title strangely reminiscent of Spencer's essay in 1859, there appeared in 1939 a significant volume by Robert S Lynd,[1] an eminent

[1] Robert S Lynd *Knowledge for What?* (Princeton N J , Princeton University Press, 1939) See particularly pp 236 237 Entire volume should be known to educational leaders

sociologist The book, *Knowledge for What?*, presents a compelling case for the place of social science in our culture and in education, just as Spencer had pleaded the earlier case for the physical and biological sciences The Educational Policies Commission of the National Education Association brought out in 1944 an able booklet entitled 'Education for All American Youth' The attack was positive in that a new program was proposed in some detail Criticism of the old is indirect but clearly repeats for schools of the United States what Spencer had said of British schools eighty-eight years before, the bulk of the curriculum is of little value to the majority of pupils

An interesting illustration of progress in the United States In three quotations we have a significant illustration of the recency of success in studying the curriculum in operation and in improving it

In 1923 Charters said -

> The school curriculum is the latest great social agency to feel the effect of the theory of evolution Biology for sixty years has recognized the fact that living structure is modified to serve the functions of plants and animals Sociology, economics, and history accept the fact that the forms of institutions are determined by the attempts of man to make his environment minister to his needs

> While all these revolutionary changes have been under way, the theory of the formation of the curriculum has been slow to react to them The curriculum builder has felt that the specialists who organize the subjects have developed the best curriculums

> One would expect that those profound changes in the aims of education which follow revolutions in world thought would be reflected in equally fundamental changes in the curriculum of the school, but in practice the changes have always been tardy and have seldom been complete
>
> In the present period, when the world thought has been turning to a consideration of social facts and ideals the theory of the aims of education has been modified but the changes in the curriculum in actual operation are still quite inconsiderable

Four years later in 1927 Rugg in vivid, dynamic language points the issue even more sharply [8]

> Not once in a century and a half of national history has the curriculum of the school caught up with the dynamic content of American life Whether of colonial reading or reckoning school, Latin grammar school, academy, or modern junior high school, the curriculum has lagged behind our current civilization Although the gap between the two has been markedly cut down in the last

[2] W W Charters, *Curriculum Construction* (New York, The Macmillan Company, 1923), pp vii, 3 4 Quoted by special permission of the publishers

[8] Harold Rugg The School Curriculum and the Drama of American Life,' in *Curriculum Making Past and Present, Twenty-Sixth Yearbook* of the National Society for the Study of Education (Bloomington, Ill , Public School Publishing Co , 1927), Ch I, Part I, extracts from pp 3 16 Quoted by permission of the Society

three quarters of a century, nevertheless the American school has been essentially academic Today, much of the gap persists

Not only has there been a huge gap between the curriculum and American life, a similar one has persisted to the present day between the growing child and the curriculum There are, indeed, three critical factors in the education process the child, contemporary American society, and, standing between them, the school curriculum

No, in more than a hundred years of systematization of the national educational scheme, the materials of instruction have not only been largely aloof from, indeed, foreign to, the institutions and culture of the American people, they have failed equally to provide for maximal child growth If the curriculum of our schools is to serve its true function, however, it must be reconstructed on a twofold basis Adequate provision must be made for creative personal development and tolerant understanding of American life must be erected as the great guiding goal of education Its reconstruction, therefore, must concentrate upon two foci—child growth and the dynamic content of American civilization

In a hundred years, however, the public school has lagged far behind It has never caught up with the momentum of industry, business community life or politics Only rarely has it succeeded in dealing with contemporary issues and conditions, never has it anticipated social needs the halo of the past has oriented those who have made the content of our school curriculum

Let us consider first, therefore, in this attempt to understand curriculum making, the startling contrast between life and education on the North American continent from Washington to Coolidge Because of the hiatus between the two, it is of crucial importance that we study its course Indeed, no task confronting the curriculum-maker is of greater importance than that of bridging the current gulf between them He who would undertake the task, however, must have a clear understanding of the development of the curriculum during the past century and of the method of its construction as well as an appreciation of the ever increasing momentum of American life during this period To these historical considerations we shall now address ourselves

Rugg's emphasis upon the historical background of curriculum construction is sound It is impossible to study intelligently the curriculum in operation without knowing the genealogy of that curriculum [4] Meanwhile we may note that Rugg continues the account above in a thrilling, vividly written chapter which contrasts the vigorous drama of American life with the quietly conservative curriculum

A great nation of fabulous wealth and power springs up, an agricultural civilization changes to an industrial one, political and social relationships change profoundly—the whole face of life changes! New

[4] Abbreviated summary outlines of this background will be found in William H Burton, *Introduction to Education* (New York, D Appleton Century Company, Inc, 1934), Chs 9, 10, 15 17 Also in the first edition of the volume here revised Appendix pp 965 969

A more extended summary will be found in the *Twenty Sixth Yearbook, op cit*, and especially in Harold O Rugg, *American Life and the School Curriculum* (Boston, Ginn and Company, 1936)

problems and relationships of complex and terrifying import appear And what of the curriculum—the agency which is to prepare for life? What part did the school play either in shaping the new civilization, interpreting it, or even understanding and preparing for it?

> the lazy giant—the public school—sleeps peacefully on, unaware of shaping issues! [5]

About all that can be said is that the "grandeur that was Greece and the glory that was Rome" persisted calm and undisturbed in the curriculum To be sure there were fragmentary, limited, local efforts to adjust to new demands Some of these were reasonably successful but no movement of scope and power emerged

Ten years pass, and in 1937 there appears this paragraph [6]

> In recent years the school curriculum has been a focal point of criticism, conflict and activity Out of this welter is emerging a new and modern curriculum which differs in many fundamental respects from the placidly accepted curriculum of a few years ago
>
> The modern curriculum is an outgrowth and expression of the principles of democracy and is intended to aid in the achievement of democratic ideals As the concept of democracy is expanded and altered in the presence of shifting social and technological conditions so should the school curriculum which serves it be modified and revised in order that its functional values may be maintained at a maximum The experimental philosophy underlying the modern curriculum further explains its experimental nature and its continuous state of change The psychology of the modern curriculum is distinguished by its emphasis on pupil purposes maturation levels integrating experiences, and the personality effects of all aspects of school life

The prophecy by Rugg that democratic American life and the nature of the learner would become basic considerations is borne out by Mackenzie's report Curriculums, furthermore are being basically reconstructed or developed instead of being merely rearranged

Certain modern critics lag behind curriculum development The new functional curriculum which is emerging and which is in operation in many places has brought about an odd situation in regard to public and professional criticism Criticism, historically, was directed in the main at outmoded, static, and incompetent courses or curriculums Valuable criticisms of this type are still heard but a new type of criticism is also emerging Criticisms are today directed sometimes at the most sound, modern, useful, functional type of course and curriculum The curriculum in many places, perhaps for the first time in history, is now definitely in advance of public understanding The reasons for this, the

[5] *Twenty Sixth Yearbook, op cit* p 12 Quoted by permission of the Society

[6] Gordon N Mackenzie, "Supervision Confronts a Changing Curriculum, *California Journal of Elementary Education*, Vol 5 (February, 1937) pp 146 148

dangers, and the corrections of the situation are important to all who exercise educational leadership Let us examine a brief summary

Current criticisms of modern education, its curriculum and procedures appear in numerous articles and books. Argument has raged in both lay and professional periodicals and in the daily press The controversy has now reached the stage in which adequate summaries of scattered materials are appearing Extensive summaries[7] are readily available to all interested students and field workers Because of this and in the interests of space conservation, the discussion below is sharply curtailed The points outlined are stated without the usual limiting or qualifying particulars which would develop in detailed discussion There is no intention to be dogmatic but merely to summarize in brief space the major points derived from a voluminous literature

The principal criticisms widely voiced may be reduced to a few sentences. The modern school

1 Does not teach the 3 R's does not give adequate grounding in the "fundamentals"
2 Is soft (there is no discipline, the child does as he pleases) lets "Willie express himself" but does not make him obey
3 Lacks standards
4 Is not producing leaders

These criticisms of the modern school, did the critics but know it are more characteristic of the traditional school! The typical traditional curriculum to which many wish to "return," lags far, far, behind our scientific knowledge about the learner and his learning processes, far behind our knowledge about adapting the curriculum to social needs The curriculum for which many plead is actually formal, static, and badly out of step with modern knowledge The modern curriculum, in contrast, is far from being "easy" or "soft," or neglectful of the fundamentals It is clearly in line with huge bodies of valid facts derived from basic scientific research in biology, physiology, pediatrics, anthropology, psychiatry, sociology, not to mention psychology and education itself

Criticism concerning the 3 R's is so common and so widespread that before considering the factual answer below, it might be well to ponder the following counter-statement *Many schools, far from neglecting the 3 R's have been so preoccupied with them that they have neglected the*

[7] *Adventure in American Education*, the story of the Eight Year Study in five volumes *The Story of the Eight Year Plan, Exploring the Curriculum, Appraising and Recording Student Progress Did They Succeed in College?, Thirty Schools Tell Their Story* (New York, Harper & Brothers from 1942-1945)

J Paul Leonard and Alvin C Eurich *An Evaluation of Modern Education* (New York D Appleton-Century Company, Inc 1942) A well written, easily read volume summarizing 154 investigations Note the excellent bibliography Probably the best single volume available

William H Burton, *The Guidance of Learning Activities* (New York D Appleton-Century Company Inc 1944) Brief, easily read summaries See Chs 3 and 4, particularly pp 81 89 and 112 120 Chs 7 and 8, particularly pp 234-239 Note bibliographies

vitally important outcomes of citizenship, social competence, and the ability to be secure in a changing, dynamic civilization

The four criticisms listed above may be accompanied by four suggestions made by the critics

1 Let us "return to the 3 R's" return to the "fundamentals"
2 Let us "get tough" in disciplining youth, make children do as they are told hold them to difficult distasteful tasks and "make them like it"
3 Let us return to the reputable standards of yesteryear to the stiff uniform, academic standard of mastery of specified subject-matter, let us have 'no nonsense", let us have done with this 'activity or 'experience curriculum
4 Let us return to stiff ruthless competition between pupils so that leaders will emerge as the weaker ones fall

Before taking up the more fundamental aspects, four quick answers may be made

1 The school has never at any time, anywhere, deserted the 3 R's, the fundamentals They are taught in every school in the land
2 The modern definition of discipline and the scientific knowledge about discipline are flatly contradictory to popular belief The development of self-discipline is quite different from the maintenance of order through repressive discipline Development of self discipline is an inescapable necessity in a democracy, and it cannot be developed without opportunity, to exercise choice and to make mistakes A very different school régime results which disturbs uninformed persons
3 The traditional school never at any time, anywhere met its own 'stiff' standards The unreality of these standards played a part in the elimination of 50 per cent of all pupils early in the grades The fact learnings constituting the standards were soon forgotten *The very recurrence of the criticisms indicates failure to meet these standards*
Worse than that, the traditional school completely neglected far more important types of learning, namely development of behavior controls in the form of understandings, attitudes, appreciations, and so forth It completely neglected creative education
4 The modern definition of leadership, the type of leadership in the modern world, and the scientific knowledge about its development are flatly contradictory to popular beliefs The modern school develops better and more rounded leaders than the old

The causes for these erroneous criticisms are, some of them, simple, others are more complex and important The simple reasons for the blunders in judgment are in general

1 The critics do not know the facts, particularly concerning pupil achievement in the 3 R s the development of more important learning outcomes, the development of leadership, the development of creative expression
2 Critics fall into certain extremely simple logical errors
   a The highly selected group of pupils of the earlier period and their achievement is compared with the extremely heterogeneous group of the present, all the children of all the people' and their achievement
   b A bright adult from a selected group is compared with an average or dull child now in school

c Freak cases, extreme illustrations, gossip, cartoons are accepted as evi dence
d Individual cases are used "I knew a boy," "I tried that and it won't work"

3 Nostalgic longing for the return of conditions which never existed in the first place is common among forty year-old adolescents The 'good old days" were better, women were fairer, winters were hardier flowers bloomed better—but it wasn t so!

The more serious reasons for criticism of modern curriculums are highly important and deserve attention from all educational workers The errors of the lay critic rest in part surely upon the failure of professional leaders to explain modern educational science and to keep school patrons abreast of developments

1 The lay public and less well-trained teachers are upset by the uncertainty and insecurity which inevitably accompanies periods of great social change

The world is unquestionably in such a period A new civilization is emerging with its inevitable dislocation of settled beliefs and ways of doing things Criticism is directed at all new beliefs and practices in government, in the industrial world, and in the social order generally The curriculum of the school receives its share The real cause is not weakness in the curriculum but the basic fear of uncertainty and in security Teachers and the lay public all *know* the 3 R's, they *know* the multiplication table They are sure of these, they feel safe and secure When, however, they tackle problem solving, teaching to think free group discussion, the use of varied activities within a class group, they are frightened There is no such stability to group discussion as there is to the multiplication tables or the capitals of the states! The management of group discussion and of varied activities is far different from listening to rote repetition of the tables! Certain persons are upset and plead for a return to simpler days [8]

2 The lay public and many teachers do not believe that certain learning activities and outcomes which are primary in modern curriculums, really belong to youth and to childhood
a The development of judgment, the power to choose and decide
b The exercise of initiative and responsibility
c The ability to plan and to develop purposeful activity
d The power of self-discipline

The public knows that a baby cannot learn to walk without practicing No one can learn to skate or dance without practice But when it comes to exercising judgment and learning to exercise judgment, then "children are too young" "Mother knows best" and will make all decisions for the

[8] The writer is indebted for certain points and apt phrases to Dr E H Reeder of the University of Illinois and to Dr Ruth Cunningham executive secretary of the Association for Supervision and Curriculum Development Unpublished addresses, March 24, 1945 before the Harvard Teachers Association annual convention

child Children must be taught to "do as they are told, to obey Then all of a sudden when he grows up and becomes an adult the child is expected to exercise judgment and to be self-controlled

All the learnings which are so important in the modern curriculum are matters of growth Development should begin in the nursery The "fundamentals," the 3 R's themselves are obviously developmental, increasing in efficiency with continued practice and use Judgment, self-control, the acceptance of responsibility can be learned in no other way than through opportunity and practice from the beginning The public is honestly convinced that these are adult level techniques and are no part of the curriculum for childhood, the curriculum should stick to giving facts These views are flatly contradicted by all known facts

9 The lay public and many less well-trained teachers are completely mistaken in their belief about the nature of mind and of learning

The following statement is admittedly oversimplified but ample extension is easily available The average citizen's beliefs about mind and learning are usually naive and inarticulate but can be described in part as follows

a The mind is something like a cold storage plant like a clothes closet, or other storehouse reservoir or depository
b Parents and teachers fill this storehouse with facts we place them there and let them stay there
c The facts and ideas stored there, if they were well taught in the first place, will remain good and usable indefinitely, they can be called up for use anytime and will function as 'good as new'
d The mind is a limited space, therefore we had better stick to fundamentals and not clutter up this limited area with other things

These ideas again, no matter how sincerely held, are all flatly contradicted by voluminous evidence The persistence of (c) even with trained thinkers is a mystery since everyday experience contradicts it continuously The mind and learning are dynamic, not static *The things learned must be used to retain their vigor*

A few criticisms are malicious. Educational leaders should face the fact that certain criticisms, worded as those above, emanate from powerful persons with vested interests There is clearly the attempt, constant through history, to curtail the enlightenment of the average citizen These appear chiefly in the daily press and in the publications of various "associations" dedicated to saving the schools These criticisms must be met by courageous counterattack prepared by associations of professional educators

The responsibility of educational leaders concerning these criticisms The basic reason for the prevalence of misunderstanding and of nonsensical criticisms of improved curriculums and methods of teaching, is the failure of educational leaders to provide for adequate community

participation in developing educational programs The value of community participation has been made amply clear in preceding chapters The facts about education and learning have not been presented properly or adequately to the public Presentation of factual background is even more important when participation is lacking Earlier in the current era of improvement some leaders failed to present any evidences concerning the effectiveness of new developments Today the situation is reversed, many critics failing to present any evidence at all Today there is no excuse for failure by anyone to present data The methods of deriving data concerning current programs are well known A huge volume of validated background material is now available, some of it derived directly from on-going programs, and some of it, as indicated earlier, from half a dozen related scientific fields

Criticisms of new developments are likely to clear up as leaders take the public completely into their confidence and explain in simple, nontechnical terms the discoveries of modern science regarding education This does not mean that we employ that barbarous term and concept, "selling" the schools to the public It means to employ that basic necessity in democratic society, wide participation by the public in the actual development of the program A public relations program as a part of the total project is legitimate

Participation will not only remove uncertainty by substituting understanding but will familiarize the public with the psychology and process of change The inevitability of change in a dynamic society, the principles and techniques useful in overcoming inertia, in stimulating social invention, in changing beliefs, customs, and habits, become familiar Fear of the unknown and uncertain is thus reduced

An excellent type of competent, informed, and dynamic leadership is required Failing a reasonable degree of adequate leadership, the efforts of the inert, the uninformed, or the malicious will succeed in part

Continuous criticism a sign of health A minority of school officers and public leaders who are reactionaries of the 'congenital" or "glandular type, look upon the historic series of criticisms with smug satisfaction "Improvement of the curriculum is just another passing fad" "Radicals and dissatisfied persons alone wish to tamper with the time honored subject-matter 'We, however, know the eternal verities" "We stick to what we are doing' "The curriculum does not ever change greatly" Another group of uncritical individuals is sometimes discouraged by the criticisms "We do not make much progress, do we?" "We are just where we were"

The more informed attacks, on the contrary, are excellent signs of progress Reactionaries and superficial observers alike overlook the fact that it is a different curriculum which each time is under criticism. Criticism, both negative and positive, careful analyses of curriculums in

the light of life needs, and constructive effort toward improvement, constitute an unending series of rotating activities. Each curriculum severely criticized was an improvement over the one just before, and so on through the centuries. The continuous, critical analysis of curriculums by competent scholars, instead of affording conservatives an opportunity to stand pat, to "remain true to the fundamentals," does, in fact, supply the best evidence showing why it is impossible to stand pat.

Historical changes in curriculum procedures summarized. The basic changes which have taken place in curriculum principles and leadership have been presented in considerable detail in several places. The following is an extremely abbreviated summary.

1. Change in Aim and Purpose
   - *a* The aim is no longer to train some for leadership, many as followers and all in the formal routines of democracy, it is toward both leadership and service for all as ability and occasion permit, toward a broad, functional belief and practice of democracy instead of a limited, formal, concept
   - *b* The aim is no longer mastery of an abstract, verbal and intellectual curriculum but is growth and development of the individual
2. Change in Orientation
   The almost exclusive interest in the past is giving way to a concern for the present and the future. (The wisdom of the past, the cultural heritage will be utilized far more effectively within a living situation than when imposed without a reason apparent to the learner.)
3. Change in Content
   - *a* From classical and traditional subject matter to functional materials and experiences dealing with current problems
   - *b* From material to be accepted to material which stimulates independent thought and judgment
   - *c* From emphasis upon study habits to emphasis upon work habits
4. Change in Organization
   - *a* Elementary level: typical subject organizations are giving way to projects, centers of interest, subject-matter units, and to functional or experience units
   - *b* Secondary level: a functional core is appearing which extends general education upward. The special subjects are being reorganized in the light of present day needs. New subjects and areas of experience are being added
5. Change in Standards
   The measurement of mastery of adult selected subject matter skills at given intervals is giving way to continuous evaluation of pupil growth in desirable knowledges, skills, understandings, attitudes, behavior patterns, and so forth
6. Change in Methods of Development
   - *a* From exclusive leadership by professors, subject specialists, administrative officers, toward cooperative leadership of these and many other persons: teachers, all school officers, child psychologists, laymen, and various specialists
   - *b* From arm chair, scissors, and paste to cooperative development and experimentation

SECTION 2

A BRIEF SUMMARY OF REASONS SHOWING THE NECESSITY FOR CONTINUOUS CURRICULUM REORGANIZATION

A sketchy outline of major causes is all that is possible here Students or field workers unaware of the necessary background are urged to avail themselves of the ample literature To engage in educational leadership without reasonable knowledge in this area is to be intellectually reckless

The gap between life and the curriculum must be narrowed. The one fundamental reason for curriculum revision stands out starkly Curriculums must be under constant revision in order to keep pace with the constantly changing needs of the individual and of society Education is one of the basic institutions and social forces through which society and civilization are perpetuated, and through which the individual may realize his own unique possibilities Education is to introduce succeeding generations into the culture surrounding them, prepare them to live within it, and, more important, prepare them to participate in improving that culture Society is not fixed and eternal, it is dynamic and emergent Inventions, social and mechanical, new alignments of wealth and power change the structure of society Old needs and activities disappear, new ones emerge The "fundamentals" of an education for participation in a simple, isolated, pioneer, agrarian society, are futile as preparation for participation in a complex, interdependent, urbanized, industrial, civilization The 3 R's are an important but small part of the truly necessary "fundamental" curriculum

Curriculums have always lagged behind the needs of society, behind scientific knowledge about how to meet those needs The lag does not matter much during settled, sterile periods, but becomes of very great importance in times of crisis in civilization Survival of a civilization could conceivably be involved Revision of the curriculum could easily become the critical factor in the "race between education and disaster"

The curriculum for the selected few must be expanded to meet the needs of "all the children of all the people" One of the aims of the American dream is that of bringing education to "all the children of all the people" Progressive tightening of the compulsory attendance laws succeeded in bringing practically all the children of all the people into the elementary school during the first quarter of this century The events from 1929 to 1935 brought approximately 70 per cent of the possible secondary population into the schools Large groups of persons appeared in school who had hitherto not desired or who had been denied an education In addition there came the lame, the halt, and the blind, the tubercular, the delinquent, the mentally deficient For the first time in the history of civilization a school system was called upon to educate *all*, not merely the able and willing

The traditional school was organized largely for those (1) wishing to

attend, (2) possessing interest and ability, and (3) probably going on in school and backed in their desire by the homes Into this school organized for a small number of select students came hordes who (1) did not want to attend, (2) had little interest in or ability for the curriculum as then organized, (3) were not going on and who were not backed by the home What happened? The school was entirely ignorant of the needs, desires, or abilities of the new horde, and besides had nothing to offer them if it had known their needs The traditional formal curriculum suited to bright pupils preparing for higher institutions was set before the new groups They could take it or leave it For a long period they left it. School was an unhappy place, with early elimination for large numbers,

The relationship of this to bad citizenship, to delinquency, and to many lesser ills in social life was eventually recognized The schools of the United States accepted this great challenge—and have been engaged ever since in remaking curriculums to serve new groups and new needs, to improve the offerings for older groups

Educational research stimulated reorganization A chapter is devoted to research and its contributions, hence but a few sentences will be used here A half century of research and child study has developed a truly huge body of material about children and adolescents, about their growth and development, about their learning activities, about their social and emotional development, and about individual differences among them The personal-social moral development of the individual is as important, perhaps more important than the narrowly intellectual development Growth in understanding of a dynamic, interdependent society is an important part of the education of all individuals Large numbers of new "subjects," and later "areas of experience" have been added, of necessity, to the curriculum

The retention of traditional subjects and subject organization is not historically nor functionally sound on all levels Inquiry into the typical subject organization of current courses and curriculums throws additional light upon the problem What is the origin of "subjects"? How did the subject form originate? How was content for given subjects selected? Why the particular subjects now constituting the curriculum? How did Latin and home economics come to be offered in the same school? Why are some subjects elective, others required?

Subjects were organized by bright, mature, adult scholars who abstracted the necessary materials from real life Human knowledge originated in the necessary activities connected with daily life Early man while securing food, clothing, and shelter, evolved skills and discovered facts Primitive minds did not separate knowledge or skill from the occasion in which it was used Brilliant intellects later made the separation Number could be separated from the things numbered Numbers could be manipulated quite apart from the real things from which they had been derived Arithmetic was organized by minds capable of abstract

intellectual endeavor Geometry, grammar, even such living things as literature and history eventually were widely separated from their origins This is an interesting psycho-historical phenomenon

The logic of subject organization is that of the material itself, not the dynamic logic of the immature mind learning new materials The separate subjects, products of expert abstract thinking, of high grade adult intellect, were then given to little children of immature intellect and with necessarily limited life experience! The typical subject curriculum in the elementary school is a patent absurdity! Revision movements have gone a long way toward a lifelike, unified curriculum The particular subjects now in use in the secondary school were once directly useful in the real life of those who studied those subjects Latin secured its place in the curriculum originally for the very same reason that consumer education, biology for life, propaganda analysis, the study of comparative economic systems, and courses on the family, now ask inclusion usefulness in the real life of the times He who clamors for the retention of the sacred elements of the present curriculum or who demands that Latin or geometry be *required* of all pupils is not merely ignorant of history, he is ignorant of the origin and nature of geometry as such (Let it be noted here that the foregoing is not an argument for the total exclusion of Latin, geometry, or other older subjects The argument is for realignment of the curriculum with the life needs of various groups of persons) No list of subjects can possibly contain the elements of general education once and for all No list of subjects has ever persisted indefinitely—despite the efforts of many intrenched routinists! The great developments in the secondary curriculum in the last fifteen years are in part due to greater knowledge of the simple structure of the curriculum divisions

Studying the course of study and the curriculum in action are not passing fads They are permanent and fundamental activities of the educational scene in the United States The general movement is rapidly becoming more effective, the results more successful

Obstacles and difficulties are present The glamor and prestige of time-honored (and shop-worn) curriculums persists The tendency of human activities and institutions to crystallize operates in education as elsewhere Inertia, comfort in easy routines, the security of tenure all operate to aggravate what has been called the professional disease of teachers, the reluctance to study one's own business The nature and administration of education develops an attitude of almost complete indifference to responsibility for results on the part of many The distance between the classroom and proof of its effects upon the learner is a serious difficulty Improvement in these areas will come through improvement in teacher training and selection, improvement of in-service training with its development of cooperative activities, and eventually through elevation of professional attitudes and standards The modern movement toward con

tinuous evaluation of results as a part of the on-going instructional program will reduce the gap between teaching and its results

The pace within the curriculum movement does, however, accelerate almost as we watch it Inertia is no longer respectable and receives less tolerance The obstructionist is treated with more decision if he persists after opportunity to study and participate Experimentation, study groups, regional conferences, workshops are increasingly used City, state and national programs are emerging

SECTION 7

BRIEF SUMMARY OF IMPORTANT[9] DEVELOPMENTS IN THE UNITED STATES

The history of efforts to change the curriculum in the United States The early history of the curriculum from Colonial times until approximately 1895 is the story of the evolution of the traditional, typical subject curriculum The curriculum became a sequence of graded units through which, theoretically, children passed one unit per year The pupils were roughly in chronological groups and the curriculum supposedly adjusted to their maturity levels Actually the curriculum was formal logical, and adapted neither to the children nor to life

Early demands for reform Even before this traditional curriculum was perfected it was under criticism As early as 1870 effort was made to break the lock step in the grades In 1874-1875 attacks were made on the lack of articulation between school divisions From 1888 critical analysis and suggestions for improvement were continuous increasing steadily in number and vigor The Committee of Ten, formed to consider some of the criticisms, turned in a reactionary report in 1893 which retarded progress Otherwise most of the analyses were forward looking

The writings and addresses of W T Harris, Francis W Parker, President Eliot, President Harper, and John Dewey argued for shortening and enriching the elementary curriculum, eliminating much drill material, introducing stimulating materials earlier, adapting to the nature of the learner and to the needs of life

The increasing effect of the compulsory attendance laws made the problem very acute since the traditional curriculum was even less fitted to

[9] NOTE Texts in education are constantly criticized as containing unlimited, unnecessary, tedious repetition Authors are doubtless led into this repetition by a natural desire for adequacy and coherence

To treat adequately the historical background of curriculum development would necessitate two if not three, chapters This would be out of place in a supervision volume, but more important, the material (*a*) should already be known to competent supervisors and advanced students, and (*b*) is easily available in accessible references Hence the authors have adopted the device of including here an extremely skeletonized outline Any supervisor or student who is not reasonably familiar with the material available in the literature is urged to do some rapid reading before going further with the supervisory problem and the curriculum

the many types of children now being brought into school for the first time

The application of scientific methods to measuring outcomes and to the analysis of learning difficulties gave objective evidence of some of the glaring defects of the traditional curriculum

The indictment of the traditional curriculum Out of all this emerged a country-wide indictment of the 8-4-4 graded school with its lock-step sequence of logically arranged subject-matter It was said that too much time was consumed in educating people, life needs were not met, individual differences were neglected, gifted children were retarded, articulation and transition from division to division were faulty It was held that the elementary curriculum could be shortened two years and at the same time enriched, that the secondary curriculum could begin two years earlier, provide better for differences in ability and interest, be shortened, enriched, and organized into one coherent unit The necessity for lifelike learning situations was continuously stressed

Efforts at improvement 1 *Administrative tinkering* The first efforts at improvement were naturally by school administrators This resulted in much tinkering with classification, gradation, irregular promotion periods, differentiated courses, two- and three-track systems, individualized instruction, and the like This was a period of reshuffling and rearranging, but not of reorganizing the curriculum

2 *Reorganization by subject-matter committees* Numerous committees of subject-matter specialists, later including psychologists and educational authorities, attempted to write new curriculums A very large number of committee reports on various subjects and school divisions are available The committee technique has contributed in various ways both good and bad The best known of these committees are the Committee of Ten (1893), the Committee of Fifteen on Elementary Education (1895), the Committees on Economy of Time which made four reports at various times, the Commission on the Reorganization of Secondary Education (1920) Other committees in more recent times are the Committee on Mathematical Requirements, the Classical Investigation, the Modern Language Study, and various others devoted to history and the social studies Some of these committees were organized by the National Education Association or by its subsidiary departments Others were either organized or financed by the various foundations in this country

In classes where students are not reasonably familiar with these committees, reports on the strong and weak points of this technique, class reports should be made

3 *The application of scientific methods to curriculum construction* Considerable impetus was given the whole problem through the use of so-called scientific methods of attacking curriculum problems This technique is illustrated and critically evaluated in Chapter XVII of this volume Again the results were both good and bad Much valuable and

reliable guidance was secured, but there was an unfortunate tendency toward a narrow and limited view of the curriculum Hence there evolved a counter-emphasis upon the philosophic consideration of values, aims, and desired outcomes

4 *Modern cooperative curriculum construction* The foregoing concepts and procedures dominated the field until approximately 1930, and particularly during the 1920's The aim was to produce a course of study deemed by experts to be sound scientifically and philosophically, and then to set about the task of seeing that teachers used it effectively in developing their individual curriculums Flexibility appeared, but, in the main, prescription of minimum essentials was dominant

A new type of activity appeared about 1930 The organismic psychology changed our basic conceptions about the learner and his processes Three principles of great import began to operate continuity of growth, experience as the method of learning, and integration as continuing aim

The principle of growth emphasized the flexible, experimental, emergent nature of the individual and of society, the continuity of the stream of experience This made for continuous curriculum revision Experience as the method of learning threw the many varied learning activities operating in real experience into sharp contrast with the limited formal activities of memorizing, drilling, doing tasks under assignment, and so forth Integration emphasized the wholeness and unity of individuals and of society and made prominent the reciprocal interaction between the learner and the learning situation The demand for maximum lifelikeness in learning situations was intensified The inevitability of expanding the learning situation into the surrounding community became apparent

The emerging and expanding understandings led directly to two concepts of great importance First, the terms *course of study* and *curriculum* could not be used interchangeably Curriculum revision is not the same thing as rewriting the course of study Second, the individual classroom, the individual teacher, and the individual community school were recognized as the starting points The cooperative concept and practice increasingly came to dominate Curriculum improvement starts with effort to improve what is going on in individual classrooms and schools All types of educational workers, teachers, subject matter specialists, psychologists, supervisors, administrators, laymen, and others work together under democratic leadership The technique is that of participatory group endeavor

APPENDIX B

Curriculum Issues and Questions for Discussion

Instructors and students often wish to engage in general, introductory discussion of curriculum problems. Excellent background material can be developed while we are leading up to a definite analysis of a given situation.

Some Questions Suggested as an Introduction to Discussions of Curriculum Development

1. Why is the traditional curriculum used with seeming success for years, now under such criticism, analysis and change?
   - *a* How did the gap between curriculum and life develop?
   - *b* How did the gap between curriculum and learner develop?
   - *c* What are the chief general techniques for reducing these gaps?
   - *d* What is meant by the term "evolutionary, emergent social order" and what has that to do with the curriculum?
2. Is the curriculum to be regarded as an instrument of social progress?
   - *a* What are the techniques for discovering social trends?
   - *b* What are the techniques for discussing controversial problems?
   - *c* What are the techniques in general designed to enlighten learners concerning propaganda, pressure groups, and so forth?
3. Are the general and specific aims of education, the content of the curriculum, to be determined with some definiteness in advance of actual teaching-learning situations?
   - *a* Should the curriculum be based upon the objectives, standards, needs and purposes which are the fabric of organized society, or upon the objectives, standards, needs and purposes which are the fabric of the individual's life?
   - *b* Should the emphasis be primarily upon maintaining group solidarity and security, or upon creative self-realization?
   - *c* Should the emphasis be upon general or special education—that is, upon general culture or vocational efficiency?
4. Is all, none, or a given part of the curriculum to be required of all learners, regardless of origin, present status, and very probable destiny?
   - *a* What shall be the nature of the required core, if any?
   - *b* What proportion—roughly—should be common and required, and what elective? What will be the effect, if any, of local conditions on your answer here?

c What shall be the bases of such differentiations as are provided—IQ, special ability or interest, probable destiny, and so forth?

d Should all members of society have free access to education without limitation other than capacity to grow? (Stated negatively—should education be limited for dull children, for poor children, for children of working classes and so forth?)

e Should preparation for the next higher school be considered, ever, never, sometimes?

f What is the place of the so-called extra curriculum material?

5 How shall the curriculum be organized—scope and sequence determined?

a What are the strengths and weaknesses of organizing by subjects, through correlation, through fusion, by units, themes, centers of interest, social functions, and so forth?

b What is meant by integration?

c How have time allotments been determined in the past? How will this problem be affected by some of the newer types of organization?

6 How shall the curriculum content be selected?

a What is meant by subject-matter? Is subject-matter still necessary?

b What is meant by activities? Will they take the place of subject-matter?

c What are the criteria under which to select subject-matter and activities for the curriculum?

d What are the techniques for securing the subject matter and activities?

e What techniques have played a large part in the past and still interfere with modern techniques?

7 What is the nature of experience?

a What is the difference between direct and vicarious experience?

b What curriculum problems are involved in the matter of direct *vs* vicarious experience?

8 What is the nature of the true and desired outcome or outcomes of learning experiences?

a How should the outcomes be stated, both as objectives and as actual outcomes? Is there any difference in this item between the elementary and the secondary schools?

b How should pupil achievement, progress, growth, be marked, recorded, or reported?

c Should the curriculum (course of study) contain or suggest tests and techniques for determining progress, evaluating achievement, diagnosing learning difficulties, and so forth?

9 What should be the general procedure in reconstructing (or constructing anew) the curriculum?

a What general principles should guide, and general techniques be used?

b What part should be played by teacher committees, administrators and supervisors, a curriculum consultant, subject matter experts, psychologists, and others? The public?

c What should be the place of experimental try-out, of reexamining and so forth?

d What length of time may safely be set aside within which to complete a curriculum revision in a given situation?

10 What are the criteria for evaluating a curriculum?

11 What is the relation of the teacher training institutions to these problems of curriculum construction?

Some Curriculum Issues Remaining Over and Above the Practical Questions

We are here indebted almost entirely to a review by Philip W L Cox, "Are These the Real Issues?" which appeared in *The Social Frontier*, Vol 3 (December, 1936), pp 88 89 The review deals with the Committee of the Secondary Principles on Orientation of Secondary Education

1 How are we to achieve a functioning balance between the felt needs purposes, and standards of the learner, and the objectives standards, and necessities implicit in society and in the institutional nature of the school as agent of society?
2 Shall we advocate a curriculum permitting wide and free experimentation with materials and methods, or a rather well organized one to be followed as closely as intelligent judgment indicates?
3 Shall we follow the policy of reasonably rapid revision through experimental and tentative evaluations, or the slower policy of evolutionary adjustment?
4 How far shall the curriculum indicate acceptance by the pupils of intra and extra school régimes how far indicate discontent and protest, even defiance of such of the régimes as interfere with that degree of self expression normal and necessary to mental hygiene?
5 Should the curriculum provide for active participation in real life affairs confine itself to institutional experiences preparatory to life experiences confine itself to informational and observational training (vicarious experience), trusting to the environment to complete the training?
6 How much of the curriculum can be formulated by the pupils, and how much formulated for them?
7 How shall the curriculum recognize and provide for the educational functions of agencies outside the school recognize and utilize what the pupil actually learns outside or shall the curriculum disregard outside agencies and learnings because uneven and unorganized?
8 Shall the curriculum recognize the problems involved in propaganda and pressure groups and attempt to handle them or shall it remain aloof and attempt merely to exclude propaganda and sidestep pressure efforts or shall it indulge in 'safe discussions of these items?
9 What stand shall the curriculum take on "indoctrination" in general? (First what definition shall be accepted for indoctrination?) What shall be the attitude in specific reference to "indoctrination' of the principles institutions, and aspirations of democracy?
10 How far shall the curriculum go in deserting or modifying the traditional statement of outcomes in terms of principles, facts and skills so as to include understandings, insights, appreciations, attitudes, personal social and moral traits?
11 How far shall the curriculum modify the traditional symbols of achievement (marks examinations, diplomas) in favor of more truthful and realistic recognitions of actual conduct controls manifested by pupils?

A different line of attack is indicated in the following questions developed by Alice Miel [1]

[1] Alice Miel, *Changing the Curriculum A Social Process* (New York, D Appleton-Century Company, Inc, 1946), pp 193 194

1 Is a given constellation of habits in a school making for a desirable economy of effort and providing a useful basis of continuity or does it represent a crystallization that is deterring constructive action?
2 Is curriculum change proceeding rapidly enough to prevent further crystallization and to guarantee sufficient accomplishment yet not too rapidly to threaten the security of teachers, parents, and children?
3 How much difference in educational philosophy and teaching procedures can be tolerated from school to school and teacher to teacher? How can those differences be minimized most safely and effectively?
4 How can common goals and values be arrived at most quickly and genuinely?
5 Shall teachers, parents, and children be encouraged to express their current discontents, whether petty or not, or will this merely heighten an existing tendency to find fault with everything?
6 How will initial interest in curriculum change best be secured in a given school community situation?
7 What internal organization is most satisfactory for a given situation?
8 Will the method of demonstration of the effectiveness of new ways by the school faculty to the community be most effective under given circumstances or is it better to secure community understanding and cooperation from the start in a particular instance?
9 When should an expert from the outside be brought into the picture and how should his services be utilized on a given occasion?
10 Under what circumstances should bulletins and written announcements replace group meetings?
11 Under what circumstances may a certain individual be given opportunities to practice techniques, such as those of leading a discussion at the possible expense of group accomplishment?
12 To what extent should educational leaders bow before the unquestioned power of groups and individuals in the community?
13 How shall the matter of authority be managed in a community where teachers, the board of education, and the school patrons apparently expect the administrators and supervisors to operate on an authoritarian basis?
14 How shall time be found for cooperative curriculum development without lengthening the teacher's working day unduly?
15 How can the status leader exert strong leadership without making others unhealthily dependent?

Another set of questions useful in initiating the survey of a community as part of a curriculum program follows

1 What characteristics do the boys and girls for whom this program is being designed possess as individuals which influence what they should be taught and how they should be taught?
2 What is the nature of the community in which these pupils are living? How does it influence (*a*) what they will learn without the school's aid (*b*) what they need to learn in school, (*c*) what their attitude toward school is?
3 To judge from this background, what are the specific behavior patterns which it should be the school's job to help pupils to develop? What skills, habits dispositions appreciations are to be fostered?

4 What is the nature of the vocational and avocational pursuits in which these young people are likely to engage in when they leave school and for which they ought to be prepared by the school?

5 What learning experiences are available and can be used most effectively to reach these ends? What books might be read, what activities might be undertaken, what things should be seen in order to achieve the purposes the school has set for itself?

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