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An Introduction to
MODERN EDUCATION

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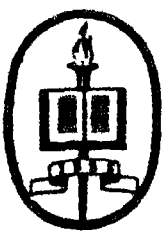
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PREFACE

An Introduction to Modern Education has been written to meet the need for a well-integrated, modern text in the relatively new field of the orientation or survey course. Though designed primarily for the use of students in normal schools, teachers colleges, schools of education, and college departments of education, it should prove to be profitable reading for teachers in service as well, and for adult education groups, school administrators, and public-minded citizens who are concerned with the way education is going or should go.

The emphasis of the book is primarily social, but the historical, psychological, and philosophical aspects of modern education have received adequate treatment. Education is both a social process and a social function. It is dynamic, changing to meet the major needs of a changing society, and also transmissive, conserving the established values of past social experience. Accordingly, whatever in educational experience is new and important, and whatever is old but still functional, will be found in this text.

The book is authoritative, being the work of a group of experts, each writing in his own field. All the contributors are administrators and professors of high standing and broad experience. Most of them have taught the orientation or survey course. All were guided by the general pattern devised to give unity to the variety of contributions and prevent overlapping and duplication.

The Table of Contents reveals the wide reach and the close organization of the material included. The introductory chapter on the school as a social institution and the chapters on the rise of the characteristic institutions of American education provide the background for understanding current problems. The chapters on the relation of school and community are a special new study, emphasizing the need of correlating school and community

activities. They are followed by a group of chapters dealing with the forms, functions, and control of public education, or what may be termed the administrative aspects of education. The chapters on the art of teaching consider the individual as the unit of learning, the nature of learning, the dignity and importance of the teaching profession, traditional and new techniques of teaching, and the question of the relation of physical and mental health to education. The chapter on educational measurements advocates the substitution of scientific evaluation of educational results for opinion. The final chapters review educational progress to date and present the most important current philosophies of education. A useful brief appendix explains certain fundamental statistical procedures as they apply to education and psychology. Thus the book offers a practical, comprehensive overview of modern education, covering all the topics that are usually treated in the orientation course.

The editors wish to express their indebtedness to all the contributors for their professional cooperation, without which a work of this kind would have been impossible. In particular, we are indebted for valuable help to Professor Herman Harrell Horne and Dean John W. Withers, who gave most generously of their time in making suggestions for certain parts of the book and in offering friendly criticism. We have also received valuable assistance from Bess Anderson Langfitt in the general work of editing the manuscript and in following the book through the press. Special acknowledgment for assistance in obtaining suitable pictures is given to Maurice S. Hammond and Frank W. Thomas of New York University. For clerical assistance, acknowledgment is due Vivian H. Robinson, Clara Dieter Beckmann, and Jean Smith Duffield.

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May 25, 1937

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CHAPTER I

THE SCHOOL AS A SOCIAL INSTITUTION

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Education as a Shared Social Responsibility

The Two Meanings of Education. Education as a social institution must not be confused with education in its more fundamental and inclusive meaning. Education in this latter sense is no more to be identified with the school than religion is to be identified with the church, or the state with its institutions of law and government. A person is being educated in some direction and to some extent, however slight, by each of his experiences and by every life situation to which he makes an active response. Education must therefore be recognized as a shared responsibility, since all agencies, public and private, that determine to any extent the form and character of the situations to which individuals are exposed, and to which they respond, have a share in the total outcome. Accordingly, the whole burden of education in any state or local community cannot be placed upon the public schools. The tendency to do this is easy and natural, for in the public mind the school is the only institution established and maintained by society whose sole function is education. Other institutions are educative in their influence, but education in their case is a secondary and subordinate purpose; it is not their sole or even their primary function.

NOTE. In this opening chapter we are chiefly concerned with the approach to the study of education. Many of the topics introduced will receive fuller treatment in later chapters. We here present merely a general survey or overview of the subject. The student should read the various sections critically, and not hesitate to challenge the validity of any statement, using for this purpose his best thought and the results gained from his reading and from other sources of information.

Share of the School in Total Education. To a certain extent, the influence of the school, or of any other social agency, on the total outcome in the education of an individual may be regarded as a function of the portion of his waking time during which he is directly exposed to such agency. This is not an entirely satisfactory test. Nevertheless, it is worth considering, as giving to some extent a legitimate estimate of the share of the school in social responsibility. The schools are being blamed, often by well-meaning and intelligent people, for their failure. It is claimed that the rising tide of youthful criminality, for example, is due to the failure of the public schools in character education. Is this criticism valid? The average age of our criminal population today is about nineteen years. How much of the waking time of any criminal who has reached the age of nineteen has actually been spent in school? Assuming that such an individual has spent an average of one-third of his whole life in sleep, and that he has been awake and active on an average sixteen hours a day, 365 days a year, for nineteen years, his total waking time would be 110,960 hours. Assuming further that during this nineteen-year period the schools have been in session five hours a day for two hundred days a year, and that the individual has attended for ten years without missing a day, his total time in school would be 10,000 hours. This indicates that he has been directly exposed to the influence of the schools only nine per cent of his total waking time. Obviously it is necessary to consider seriously what he has been doing during the other 91 per cent and what influence his out-of-school experience has had upon the development of his character.

No one should wish to excuse the schools from any just part of their responsibility. We must not exaggerate the responsibility of the non-school agencies. Let us admit that it is not fair to claim that, because the schools have had the young criminal only nine per cent of his waking time, they should accept only that fraction of the total responsibility. But even if it is claimed that the influence of the school should have been as much as 60 or even 75 per cent in the total outcome — certainly a very generous estimate — it is apparent how profoundly important it is that the other 40

or 25 per cent should also be studied, its effect determined, and the responsibility placed, so far as possible, where it actually belongs.

Social Institutions and Changing Social Needs

We have spoken of the school as a social institution. In general, social institutions may be defined as devices and forms of social work that have been progressively worked out in the coöperative life of society for the purpose of economizing energy, conserving and transmitting satisfactory modes of adjustment, and releasing energy for the more difficult problems of the higher and more complex activities and enjoyments of individual and social life. A social institution, therefore, is a means both of conserving and of promoting progress.

Process of Adjustment of Individuals and Institutions to Changing Conditions. In their relation to society, these institutions are similar to habits in the life of an individual, not only in their general function and manner of development, but also in the ways in which they become readjusted to new and changing conditions. An individual who has lived for some time in the same environment, and has been required to adjust himself to a number of situations that frequently occur in essentially the same form, eventually learns to deal with these situations successfully by the formation of habitual reactions. Forming a habit requires not only time but also, at the start, an excess of conscious and physical energy. A trial and error process is used, aided, it may be, by the imitation of others. Unsatisfactory attempts at adjustment are progressively eliminated, and those that are found satisfactory are ultimately established as habits. In this way, conscious energy is conserved and made available for use in meeting new and problematic situations. If, when such habits have become well established, the individual is transferred to a new environment that requires very different types of behavior and social adjustment, the habits that have been successful previously are no longer satisfactory. He becomes keenly aware of the maladjustments and finds it necessary to set about reconstructing his habits and

forming new ones. To break down an old habit, it is necessary to thrust consciousness once more into the process which had become automatic. This interferes with its usual functioning, and the individual goes through a period of unsatisfactory maladjustment until the necessary revision has been accomplished. For a time, he performs the functions less satisfactorily than before. For example, in the effort to improve one's writing habit the results for a time are noticeably less satisfactory than they were before the effort began.

Institutions, as they progressively develop in society, go through much the same process. So long as the conditions of community life out of which they have developed, and to which they have become adjusted, remain the same or change very little and very gradually, the institutions become more or less satisfactorily adapted to their purpose, their value becomes recognized by the community, and there is little or no tendency to find fault with or to change them. But when the conditions which such institutions have been established to serve undergo rapid and profound change, the institutions naturally tend to be conservative and continue on their way. Their lack of adjustment eventually becomes apparent, and there arises a tendency to criticize and to call for a change. At such a time, in the effort to reform the existing institutions, as in the case of habits, more or less confusion and dissatisfaction occur. All sorts of possible improvement are suggested, and attempts are made to apply them. Under such conditions, the institutions discharge their recognized functions less satisfactorily than before the effort at revision began.

New Demands on the Schools. Owing to the rapid, complicated, and profound changes that have been taking place in American life during the last half-century, very considerable confusion and uncertainty have occurred in the efforts that are being made to readapt the school and other social institutions to the new and changing needs. In many cases the public schools may be justly criticized for having been too unresisting and too responsive to the external popular demands that have been made upon them. They have not always been guided by a well-defined and convincing

educational policy to which such demands could be referred and in the light of which their adoption or rejection could be justified. When outside pressure for any subject has become too strong and the popular group demanding its adoption has been too influential to be ignored or resisted, the situation has usually been met by simply adding more courses to an already overcrowded curriculum and employing, perhaps for a time, some specially qualified person to teach it. The fundamental social interests and activities among which education belongs are variable. Their relative as well as their individual importance is more or less constantly changing. Many of the new demands require types of trained leadership and service that are not now available. The need of such service is urgent and immediate and must somehow be met. The existing situation, the forces that are involved, and the conditions which have led up to it must therefore be studied intelligently, in order that we may understand this and other problems of education as we face them today.

The Ideals That Have Shaped American Education

Two ideals have long been present in and have powerfully influenced the development of American education. These ideals have in a sense stimulated each other. They have also been more or less frequently in conflict. Both are important. Neither should be sacrificed or ignored in the effort to understand the progress that has been made and the direction in which we are going. The first may be called *the selective ideal*, the ideal of culture, of scholarship, of knowledge for its own sake, and of pure as distinguished from applied research. It emphasizes the liberal education of a selected group of individuals rather than the general education of the whole population. This ideal is an outgrowth of the civilizations of Europe, in which it first developed. The other ideal developed from the recognized principles and needs of American democracy. It is *the democratic ideal*, the ideal of universal education not merely for the sake of the individuals who should receive it, but also for its influence upon the safety,

stability, and progress of the state and the nation. It emphasizes learning, knowledge, and scholarship not for their own sake merely, but for the uses that should be made of them in promoting the aims and the purposes of individual and community life. The first of these ideals developed at the top of our system of education and later extended downward; the second developed at the bottom and extended upward. The first gave us our colleges and universities; the second, our common or public schools. The first may also be called the college ideal, and the second the public school ideal.

Influence of the College Ideal on Secondary Education. The college ideal was the first to enter the field of what we now call secondary education. As a means of discovering and preparing selected groups of young people for successful work in college and for service in the learned professions, privately supported college preparatory schools were established. The teachers for these schools were prepared by the colleges. Under the influence of the education and training which they received while in college, these teachers naturally introduced into these private secondary schools the college point of view, the college spirit, ideals, and methods of instruction. The colleges were not interested in the preparation of teachers for the public elementary schools — at least not at first. For this purpose, the state established its own agencies and maintained them at public expense.

The first real conflict between the selective and the democratic ideal occurred where the elementary schools were joined to the high schools, and grew out of the effort to extend the democratic ideal upward to include secondary as well as elementary education. The increasing complexity and pace of American life rendered elementary education inadequate for the needs of democracy and called for the establishment of high schools at public expense. In creating these public high schools, the states did not at first recognize that the agencies which they had established to prepare teachers for the elementary schools should also prepare teachers for the public high schools. For the latter purpose they relied upon the colleges, which were already preparing teachers for

private secondary schools. The natural outcome was that the teachers so trained introduced into the public high schools the college ideals, spirit, and method in practically the same way as in the private preparatory schools. In other words, an effort was made to apply to institutions that were non-selective the teaching procedures that were found satisfactory in institutions operating on the selective basis.

It was but natural that teachers so trained looked upon the function of the high schools as being primarily the selection and preparation of young people for college. This was also true of the public generally. It was thought that the only justification for establishing high schools and maintaining them at public expense was to offer opportunities for secondary and higher education to young people of the requisite native ability but without the financial means to pursue their education in private institutions. The natural consequence was a lack, from the start, of a satisfactory articulation between the elementary schools and the high schools. The tendency was to impose an artificial barrier to the upward movement of the democratic ideal by the effort to restrict admission to high schools so as to exclude those who did not seem proper material to prepare for college and for the higher professions. Consequently, there was very little difference during the early part of this period of development between the purpose, spirit, and methods of the public high schools and those of the private college preparatory schools. What difference there was, was in general in favor of the preparatory schools. This was because colleges naturally encouraged their better graduates who intended to teach to accept appointments in their own preparatory schools rather than in the high schools. Moreover, the private schools could select their students and for this reason had the advantage in preparing them for admission to college. This tended to accentuate the difficulty of properly integrating the work of the high schools with that of the elementary schools. Consequently, there was for a time a tendency to regard the public high schools as inferior, and even within these schools themselves a sense of inferiority developed. However, the upward pressure of the democratic

demand, due to a number of causes which will be mentioned presently, could not long be resisted and finally prevailed.

Ultimate Dominance of the Democratic Ideal. The principles of universal education have now been extended, in practice as well as in theory, to include the high schools of the nation, and thus these schools have become increasingly democratic in their ideals and practices. As a result, the high school is no longer regarded as merely a college preparatory institution. It has a broader function and its task is much more complex and difficult: that of preparing adolescent boys and girls, sent on to it from the elementary schools, with different ideals and abilities, for the part which they ought to play in a complex and changing world, whatever that part may prove to be. The public high schools must serve efficiently all types and degrees of student ability that find their way into these institutions. The sense of inferiority has been removed, and these schools have now become the dominant influence in secondary education in the United States.

Furthermore, the democratic ideal is being extended beyond the high school. In many states the so-called junior college, or the first two years of what has been generally recognized as belonging to the field of higher education, is now included in the public school system.

The people of the various states and local communities have met the situation by increased financial support, by the erection and equipment of magnificent school plants, by increasing the salaries of teachers, establishing tenure, and making provisions for retirement, and by improving the conditions under which teachers and children work. It can no longer be said that the best college graduates who are seeking positions in the secondary schools now prefer employment in the private schools. Generally speaking, the opposite is true.

The great improvement thus brought about in the high schools, reënforced by the upward extension of the age limit of compulsory school attendance in the various states, has produced a marvelous growth in public high school attendance during the last fifty years and has also exerted a large influence on the remarkable increase

in attendance upon higher institutions of learning of all kinds throughout the United States during the same period. During the thirty-year period from 1890 to 1920, while the total population of the United States was increasing by 68 per cent, enrollment in public high schools increased 986 per cent, and in colleges and other institutions of higher learning, 432 per cent. There are at present more young people enrolled in public secondary schools in the United States than in similar institutions in the whole of Europe with four times our population, and more students in our higher institutions of learning than in similar institutions throughout the entire world.

Teacher Education

Influence of the Democratic Ideal. The fundamental change in the character and purpose of secondary education, in which the high school has been transformed from a selective institution, catering to the needs of a chosen few, to a non-selective institution that must minister to the needs of the masses, called for a corresponding transformation of policies and practices in the professional preparation of teachers and others who are to serve in these schools. As long as an educational institution is highly selective, the problems of teaching, of curriculum construction, and of administration are relatively easy to solve. The school defines its own objectives, both materials and methods tend to become highly standardized, and those students who are not adapted and who cannot adapt themselves to these materials and methods are eliminated. If the student fails in such an institution, the responsibility is placed upon himself rather than upon the institution or its teachers. But when an institution opens its doors, as in the case of the public high schools, to the masses, the situation is reversed. The responsibility for adaptation now rests upon the institution and the teachers that are employed, rather than upon the student.

Effect of the World War. The World War revealed to the people of the United States, as doubtless nothing else could have done, that in number and professional equipment the teaching staff in

the public schools of the country was wholly inadequate and unsatisfactory. Many schoolrooms were without teachers at the close of the war, and the equipment of those who were available was in a number of instances exceedingly poor and unsatisfactory. Consequently, for the whole post-war period the recruiting and education of teachers has been an outstanding problem of American education. Until recently, a Baccalaureate degree from a liberal arts college was generally considered sufficient preparation for teaching service in high schools. In an increasing number of states, however, this is no longer true. Persons so qualified do not meet present certification requirements. In fact, the failure of the colleges to prepare teachers adequately has largely accounted for the rapid transformation that has recently taken place in public institutions for the preparation of teachers. Throughout the country, state normal schools have been converted almost universally into teachers colleges and are being increasingly authorized to provide curricula of instruction and training, the completion of which leads to the Baccalaureate and even the Master's degree, and to prepare teachers for service in secondary as well as elementary schools. This is placing upon these teachers colleges a new and difficult problem which as yet they have not solved altogether satisfactorily.

Conditions of service were greatly improved during the post-war period, with the result that teaching has become more attractive to persons of ability than ever before. The average length of teaching service has increased, and relatively fewer teachers are leaving the service each year, so that the shortage of teachers who are qualified according to existing standards of certification is no longer a crucial problem. In fact, we are now facing the equally serious and in some respects more difficult problem of knowing what to do with a supply of certificated teachers that is greatly in excess of the present demand.

The present oversupply of teachers is partly due to the general economic depression and the consequent lack of opportunities for remunerative employment of educated people in other desirable occupations. The return of prosperity is likely, therefore, to relieve the situation to some extent. However, to continue to rely

merely upon the uncontrolled operation of the economic law of supply and demand, and upon the resulting competition of institutions in preparing candidates for available positions, would be unfortunate. It would inevitably bring about reduction of salaries, increased political interference with the work of the schools, decreased efficiency of the service, and a general lowering of the morale of the teaching profession.

Solving the Problem of Oversupply. The situation might be met by reducing sufficiently the output of all agencies within a given state that are engaged in the pre-service education of teachers. This might be done either by voluntary agreement among these agencies or by the arbitrary apportionment of the required service among them by the state department of education. Such a solution is of course possible, but it is not probable, nor would it be satisfactory unless by such apportionment the desirable standards of professional preparation of teachers were at least maintained.

The present situation forces upon teacher-training and certificating agencies the need of a better determination of what the educational preparation of teachers should be and how such preparation should hereafter be provided. A partial solution of the problem is being attempted in some states and cities by requiring of all prospective elementary school teachers academic education amounting to four years of college study; and of high school teachers, academic training amounting to five years of such study - in other words, a Baccalaureate degree for elementary and a Master's degree for high school certification. This movement is in the right direction, and desirable wherever it is possible to maintain this standard without reducing the available supply of good teachers below the necessary demand.

Arts colleges and universities desire to continue to educate teachers for the secondary schools. Teachers colleges are also preparing such teachers. In meeting the new situation, there has been a marked tendency on the part of the teachers colleges in some states to modify their curricula in the direction of providing more extensive programs of cultural subjects and of setting

up curricula which more nearly resemble, in this respect, those of the arts colleges. The arts colleges, on the other hand, in their effort to meet certification requirements, have in a number of instances modified their curricula by making larger provision for professional instruction and training. The general result has been a tendency for both types of institutions to approach similar programs. Moreover, teachers colleges have generally endeavored to meet the requirements of membership in standardizing agencies of higher education by providing faculties that are comparable in their general or academic education to those of arts colleges, especially in the amount and type of educational preparation which these faculties represent. Both types of institutions have naturally looked very largely to the graduate schools of arts and sciences of the universities to furnish the required number of faculty members who hold such degrees as Doctor of Education and Doctor of Philosophy.

Responsibility for the final answer to the question of teacher certification belongs to the states, since under the Federal Constitution the administration of education is left with the states. In dealing with it, the state has direct access to and control over two of its own agencies at the present time: the state department of education and the state teachers colleges, including colleges and schools of education in state universities where such institutions exist The state may and should use the service of privately endowed colleges and universities, but the acceptability of such service and the manner in which it may be rendered is determined by the state itself.

Current Theories of Education

Two conflicting points of view are found in present discussions of the theory and philosophy of education, which have become increasingly prominent in recent years. Both views recognize that one fundamental purpose of the institution of education is to serve as an important agency of social control and of social service in the maintenance and satisfactory functioning of an established social order. Both views are also concerned with the

function of education in the production of desirable social changes and the promotion of social progress. As to the appropriate ways of meeting this last obligation, the two views differ radically. One centers attention primarily upon what its advocates consider the present urgent necessity of social reconstruction and the use of the school as an agency to bring this about; the other places primary emphasis upon the improvement of the individual and the development and integration of individual personality. Its aim is to bring about the fullest natural development of the individual, not only mentally but also physically and socially.

Education as a Means of Social Reconstruction. Proponents of this theory look upon our present social order as quite unacceptable and in urgent need of profound change, and hold that effecting this change is the matter of foremost importance. They insist that, in bringing it about, education must exert a decided and positive influence. In their judgment, this is a major responsibility of the school and of the teaching profession. They do not believe that it is necessary to forsake the fundamental ideal of democracy as we have it in the United States. They do assert, however, that, while the ideal of democracy as originally established by the founders of our nation is not to be discarded, this ideal must be thoroughly revised and its practical application fundamentally changed. As originally conceived, the ideal of democracy was concerned primarily with political relations and adjustments. Today the fundamental concern is not primarily political, but economic and industrial. It is asserted, therefore, that "if democracy is to survive, it must be divorced from its union with the simple agrarian life of the past and be adjusted to the complex industrial society of the present."[1] It is pointed out that in the highly integrated social order of the present, individual men cannot own and operate the means of production as they did at the time of the founding of the nation.

[1] Progressive Education Association, Committee on Social and Economic Problems, *A Call to the Teachers of the Nation*. John Day Pamphlets, No. 30, 1933 (31 pp.). See also Herman H Horne, "Call to the Teachers of the Nation," *School and Home*, Vol. XV (March, 1934), pp. 295–299.

As a consequence, the fulfillment of the old ideal requires a reversal of loyalties at certain points. It is held that today the individual can be guaranteed freedom for cultural and spiritual growth only by the abandonment of economic individualism. Liberty of person is no longer to be attained by simply freeing business and industrial enterprise from restraint, but rather through deliberate organization of our industrial activities for greater material security for all. It is claimed that if the democratic tradition is to survive, its forms of practical expression as they have developed up to the present must undergo radical change. "To teach the ideal of American democracy in its historic form, without the illumination that comes from an effort to apply it to contemporary society, is intellectually dishonest, for it is an attempt to educate youth for life in a world that does not exist." [1]

According to this view, the school must accept the responsibility for participating actively in the task of changing the democratic tradition and working positively toward a new society. To this end, teachers must assert their independence.

> They must abandon the smug, middle-class tradition on which they have been nourished in the past, acquire a realistic understanding of the forces that actually rule the world, and formulate a fundamental program of thought and action that will deal honestly and intelligently with the problem of industrial civilization. They will have to restate their philosophy of education, reorganize the procedures of the schools, and redefine their own position in society. [2]

This view, if generally accepted, would obviously require some fundamental changes in the present methods of teacher education, and also the assumption, by the teaching profession, of an increasing burden of what may be called cultural leadership. It is frankly admitted by the advocates of this view that such a philosophy and program cannot be worked out without indulging in propaganda and indoctrination. This view runs distinctly counter to the present generally accepted practice and theory of education. To adopt it and endeavor to give it full practical expression, cer-

[1] Progressive Education Association, *op. cit.* [2] *Ibid.*

tain opposing conditions within and outside our public school system would have to be met. In the first place, the competence of educators alone to discharge the social obligation which this view assumes would certainly be seriously and justly challenged by social and industrial leaders in other professions and important fields of activity.

The remarkable development of education and the enormous increase in expenditures upon it in recent years tend to intensify popular criticism of any such claim on the part of our profession. It is even asserted by some that the interests of American people in education, which have made possible its marvelous development, have served to give educators an exaggerated notion of their own importance and an unjustifiable conception of the school as an agency of social control. This criticism is well exemplified in the January, 1934, number of *Harpers Magazine* in an article by Nathaniel Peffer, entitled "Educators Groping for the Stars." Mr. Peffer asserts that such a philosophy of education is wholly impracticable and that whatever education may be culturally, or as a concept, as an institution it is not independent or self-sufficient. "It must always bend to the collective will around it. In social ideas it can rise no higher than the source of the thought, feelings, and beliefs of the dominant groups in the society in which it finds itself." [1]

While such criticism may not be accepted as entirely valid, it is nevertheless a direct challenge to those who hold the foregoing philosophy of education, summoning them to justify their claim that educators are competent to define a social philosophy for the people of America that is superior to that formulated by any and all other groups. If the use of propaganda and indoctrination is to be permitted in promoting the educator's conception of the most desirable social order and the direction of social progress, while being denied to other individuals or groups, the superiority of the educator's conception will have to be established not only to the satisfaction of educators themselves, but also to that of all intelligent citizens. Any other procedure would be in the nature

[1] Nathaniel Peffer, *Harpers Magazine*, January, 1934, p. 232.

of autocratic dictatorship rather than of democracy. Any conception of the most desirable social order that is suited to the evolving life and peculiar genius of the American people has very little chance of general and lasting acceptance unless it progressively embodies the wisdom of the whole population. The progressive realization of the social order conceived in this way must be recognized as a responsibility of education in its wider meaning: namely, that of the community as a whole and not merely of the schools. It is true that the schools and those in charge of them now have — and present indications are that they will continue to have — an important and increasing opportunity of sharing in this responsibility. What that share will eventually prove to be, and how far it will be allowed to extend with full confidence and appreciation of the people, educators themselves must help to determine. The obligation to do this, society certainly has a full right to place upon the leaders of our profession.

In preparing those who are competent for this service, we should constantly be aware of the fact that this is not the only important social service which professionally trained educators should be prepared to render. As intelligent citizens, educators have responsibilities to society which extend far beyond the service which they are expected to render in the schools. As educated and worthy members of society, their influence outside the schools must be actively exerted in voluntary and intelligent coöperation with others in a joint effort to promote true social progress and the proper general understanding and evaluation of social conditions if true progress is to result. While this influence should not be the dominating one, it should certainly be fully equal to that of any other social or occupational group.

Education as a Means of Integrating Personalities. The second viewpoint in the current social philosophy of education places primary emphasis not upon the reconstruction of society but, as we have said, upon the fullest development and maturing of individuals, mentally, physically, and socially; in other words, upon the production of normal, healthy, and well-integrated personalities. It is believed by the advocates of this view that

individuals so developed will, in a democracy, of themselves determine and promote the type of social order and social progress that is best suited to their needs. The view assumes that the social organization in which persons so educated will attain their highest development must be democratic in its operation, each individual having a voice in determining what that order shall be. The purpose is not, therefore, an effort directly exerted, through education, to adjust individuals to an existing form of social life and coöperation or to any other that may be conceived by the educators in advance. It is pointed out that inevitably any society so constituted will itself make progress through its own intelligent, cooperative effort in the reconstruction of its institutions and other agencies in promoting the highest good of all.

According to this view, the purpose of education is, first, to conserve human material and, secondly, to assist — as wisely and fully as possible — every individual, whatever his native equipment may be, to attain the fullest maturing and development of his capacities, mentally, physically, and socially. It is asserted that only in this way can the individual become of most value to himself and to his community. The merits of this point of view should be recognized; at the same time its limitations, when it is carried to an extreme, should not be overlooked.

Progress will probably be best secured by a proper integration and relative emphasis upon both points of view That our existing social order is not altogether satisfactory, no one can deny. That it needs change and reconstruction in certain respects, and that the educator must contribute his share in bringing about desirable changes, is equally correct. On the other hand, it is just as obvious that if our human material is to be used to its fullest capacity, this can only be brought about by means of education. The decision as to how far the educator may go in either of these directions must be arrived at by intelligent study of educational values and the most satisfactory ways by which these values may be realized. The choice of values is a matter of primary importance in the determination and justification of a policy of education that will be suited to the needs of American democracy.

American Culture Patterns Influencing Educational Trends

There is being woven into American life a great variety of cultures developed in other nations and other periods of history. These cultures, if wisely integrated, will undoubtedly make for us a greater civilization than the world has hitherto known. Already certain culture patterns that are characteristic have evolved, and certain forces determining this development promise to be permanent. Among these are:

1. *A profound faith in scientific method*, and the disposition to apply it vigorously for the advancement of knowledge in every direction in which, as a people, we are interested. This faith has been thoroughly justified by its results. In his book entitled *The Wonderful Century*, published in 1900, Alfred Russel Wallace set forth what he considered the greatest human achievements in all history up to that time. Of the thirty-nine listed, fifteen had been developed prior to the nineteenth century, and twenty-four in the nineteenth century alone. Since the beginning of the present century the rate of scientific achievement has not only been maintained, but has actually been accelerated. This characteristic of our population is exerting a profound influence in many ways upon education. In order to equip persons for success in scientific research, it is now obviously necessary to extend their general, as well as their special, education much beyond what was required for such purposes in the past.

2. *The disposition to apply as fully and as quickly as possible every new discovery in some form of practical social service.* We are not content, when a new truth has been discovered, merely to publish it in book form, place it upon our library shelves, and call attention to the great contribution that has been made. We endeavor to put such discoveries immediately to work in some direction in improving technical and professional service. These two fundamental characteristics — namely, profound faith in science and the fullest practical application of the results of research — have inevitably developed a third:

3. *Increasing specialization* in practically all forms of vocational pursuits — the upgrading of unskilled occupations into skilled trades, of certain skilled trades into what may be called semi-professions, and of semi-professions into professions; and the multiplication of occupations within the various professions. A half-century ago there were but two standard occupations recognized within the profession of medicine. Today there are probably thirty such occupations, each of which calls for broader general education and more penetrating and extensive professional study and research than the two occupations originally required. The influence of these three characteristics of our people in the upward movement of the demand for secondary and higher education is at once apparent.

4 *Faith in democracy, and the disposition to extend it* — a characteristic which is today exerting a greater influence upon education than at any time in the past. During the colonial period a large percentage of the immigrants who came to America were not free. Not only were the Negroes imported from Africa and the Indians that had been subjugated not free, but also about half the white immigrants were more or less enslaved. Some who came were criminals sent over by England and other European countries. Thousands were children and young people who had been kidnaped for the colonial trade, and most of them had bought their passage to America by selling themselves or being sold for a term of years as indentured servants. When these arrived, they were either sold at the wharf when a vessel moored or were hawked about the villages in chains and sold to the highest bidder. After the United States became a nation and our Constitution had been adopted, suffrage was so restricted that although there were more than three million inhabitants, only 120,000 had the right to vote. For a time, ownership of property and even church membership were required qualifications for the right of suffrage. In fact, democracy as we know it today has been a progressive achievement in the United States. After a time, all white men over twenty-one years of age were granted the privilege to exercise fully the right to vote. After the Civil War, this right was extended

to include colored men over twenty-one as well as whites; and after approximately another half-century, women over twenty-one years of age were also given the full right of suffrage. Today it is evident in the development of our public school system that the rights of democracy in its essential meaning, and their full expression, are being extended to include children as well as adults — the right to self-activity, self-expression, and self-realization within the limits of the individual's increasing capacity to exercise that right. When all these influences are taken into account, it is much easier to understand the ever increasing demand for secondary and higher education in the United States.

The Present Situation

If we are to continue to advance in the direction which these influences indicate, our human resources must be brought to their fullest development and used in mastering the conditions that are essential to continued progress. There is justification for genuine pride in what has already been achieved in the advancement of American civilization, but the time has come for a definite redirection of effort, and in bringing about that redirection education must contribute its service. Practically up to the present time we have been primarily concerned, as a people, with the development of industry and commerce, the perfection of a marvelous machine economy, the production of great wealth, and the promotion of material prosperity. The outstanding problems, therefore, in which we have been interested, and upon whose solution the intelligence of the nation has been chiefly centered, have been those which have arisen in carrying out this nation-wide program. The educational forces of the country have, as a natural consequence, been largely devoted to the development and application of the knowledges, skills, and technical equipment necessary for this general purpose. In higher education, emphasis has been placed upon instruction and research in the physical, chemical, biological, and engineering sciences, and upon the training of men and women for expert service in the application of these

sciences in the development of industry, agriculture, and commerce. These subjects have absorbed by far the greater portion of the large sums of money that have been devoted to the promotion of scientific research in the United States during the last fifty years. The outcome is a remarkable demonstration of the efficiency of American intelligence when concentrated upon a great undertaking in which the people have been deeply interested. The results have been astounding, not only in their magnitude but also in the extent to which they have been carried, the rapidity with which they have been achieved, and the profound and far-reaching influence which they have exerted on every phase of modern life.

The question is now raised as to whether our ever increasing efficiency in the production of goods has not outrun our capacity as a people to distribute and to use these goods intelligently. Recent studies by the Brookings Institution proved beyond question that we are not producing material goods beyond our capacity to use them. Even at the zenith of our national prosperity in 1929, there were millions of our population who were living far below a reasonable standard of material well-being. The widespread suffering and paralyzing sense of insecurity during the years that have since elapsed have emphasized the fact that it is not the elimination of labor through technological improvement, but its intelligent redirection and the discovery of new ways and opportunities for its fuller and happier employment, that is the supreme need at the present time. Moreover, we have been led to see more clearly than before the social meaning of widespread, long-continued unemployment, how it lowers the morale of young people and recruits the ranks of criminals and the socially maladjusted. In a word, we have mastered our physical environment in marvelous fashion and must now learn how to understand and master ourselves, which is proving to be a more serious and difficult problem.

It is therefore evident that educational effort must now and hereafter be concentrated, to a much greater extent than heretofore, in the fields of psychology and human relations under present and emerging conditions, and on the development and wide-

spread appreciation of social, aesthetic, and spiritual values in the preparation of men and women for more intelligent, coöperative service in all desirable occupations and activities. It is here that our crucial problems of civilization, now and in the future, will certainly be found, and that the educated intelligence of all will be urgently needed for their right solution. This does not mean, however, that less emphasis must necessarily be placed upon the development and practical application of the physical, chemical, biological, and engineering sciences. It does mean that much greater emphasis on the arts and social sciences and on general culture and increased intelligence will be required if democracy is to endure and the road ahead is to be traveled in safety. It is but fair to say that, as a people, we have long been too ignorant of and too little concerned in the deeper meaning and application of such studies as economics, sociology, political science, law and government, international relations, music and the fine arts, aesthetics and religion, recreation and health, and all other subjects that are of fundamental importance in learning to live richer, more wholesome, and happier lives in the new world upon which we are entering. The general outcome of our national development thus far reveals not only the strength but also certain weaknesses of our system of education and the general philosophy of life on which it has been based. The difficulty is not only with our general objectives; it is also with our method of attaining them.

As Edward Filene has pointed out:

> . . . a new discovery in a chemical laboratory might suddenly result in the total scrapping of huge industrial plants and the inauguration not only of new methods but also of new science and a new approach to the whole fundamental problem. In our social, political, and educational experimenting . . . we never voluntarily change a good social order for a better one if we can help it. . . . We suffer from corrupt and inefficient government, but if it is not too utterly corrupt it is next to impossible to get our citizens to do anything about it.[1]

[1] Edward A. Filene, "Education in This New Age." *Addresses and Proceedings of the National Education Association*, 1934, pp. 586–595.

The changes that took place in agriculture, industry, commerce, and transportation during the first quarter of the twentieth century entirely transformed the face of the land and the life of the people. They built up great centers of economic power which projected their influence in all directions, but neither the philosophy of government nor the spirit of the laws underwent any appreciable change. The emphasis on individualism which came to us from the days of pioneer life and small-scale production continued into an era of high finance and supercorporations. Economic ideals based upon the assumption that every man works for himself were still being cherished in an age in which virtually everybody works for somebody else. So long as economic prosperity continues, it is difficult to convince anyone that there is any danger in the ever widening gap between the facts and the philosophy of American life. Economic prosperity, in other words, is the foe of national introspection A nation never asks for a new deal when things are going well. We wait until our backs are to the wall and then suddenly demand that radical changes be made, often tending to reach the opposite and equally undesirable extreme to that from which we are trying to escape

In general, the forces of education have been too little concerned with their own responsibility for understanding life as it is going on outside the institutions of learning, too slow in anticipating coming events and preparing for them. The time has come for a decided change American democracy, if it is to endure, must demonstrate its ability to solve the problems which, under its own sway, it has permitted to develop. If the noble experiment of government "of the people, by the people, for the people" is not to perish from the earth, more competent leadership must be provided, and the education of the people in general must be raised and maintained at a level that will enable them to understand the problems which must be dealt with, and to coöperate intelligently and wholeheartedly with their own chosen leaders in working out in every case a satisfactory solution. If this is to be accomplished, those who are to function in all capacities and at all levels of educational service must be selected with great care,

and a higher standard of preparation must be demanded, cost what it may. If the enormous energy and spiritual capacities of the increasing numbers of the American people which the improved technology of industrial production is now setting free can be rightly educated and applied, humanity can certainly be raised to a higher plane of culture and to a more general enrichment of life than the world has thus far developed.

It is useless to inquire whether or not we can afford it. We must afford it if our form of government is to survive. Democracy, depending as it must upon an informed public opinion for the selection of its leaders and the framing and enforcement of its laws, cannot endure unless it is made up of a well and universally educated population.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. In what ways may an overview of the field of education be of help to the beginner?
2. Cite concrete illustrations from your own local community which clearly prove that education is a shared responsibility.
3. To what extent, if at all, is the school responsible for delinquency and crime? How may a knowledge of the out-of-school activities of children help the teacher in understanding their social adjustments?
4. Show how social institutions both conserve and promote progress.
5. What evidence can you produce which shows that our social and ethical developments lag far behind our technological? How is education affected by this situation?
6. What are some of the increasing demands made on the schools as a result of technological changes?
7. How was secondary education affected by the college ideal? Elementary education by the ideal of universal education? How did a conflict between these ideals arise? Are these ideals reconcilable?
8. How was the upward extension of the age limit of compulsory school attendance influenced by improvements in the high school?
9. How have policies and practices in the professional preparation of teachers been influenced by changes in the elementary and secondary schools? Upon whom does responsibility for adaptation depend — the teachers or the students?

10. What is social progress? What conflicting viewpoints exist with regard to the function of education in the promotion of social progress? What is the responsibility of the school with regard to the improvement of the social order? Is the responsibility of the school in a democracy the same as it is in a dictatorship? Explain.
11. Is the public school a servant of the government or a coördinate agency of society? What difference does it make?
12. How do all the influences of the past and the present aid us in understanding the ever increasing demand for secondary and higher education in United States?
13. What subjects must receive greater emphasis if our democracy is to endure? How must the content and purposes of such courses necessarily influence the democracy?
14. How can our public schools prepare children for the life of tomorrow when we cannot predict just what form future social institutions will take?

SELECTED REFERENCES FOR FURTHER READING

Robert M. Baer, *The Social Functions of Education* Macmillan, 1937

William C. Bagley, *Education and Emergent Man* Nelson, 1934.

—— *Education, Crime, and Social Progress* Macmillan, 1931

Boyd H. Bode, "The Problem of Culture in Education," *Educational Research Bulletin*, Vol X (Sept. 30, 1931), pp. 339–346

Harry W. Chase, *Report of the Chancellor of New York University, 1935–36*, pp. 1–9. New York University, 1936

John L. Childs, *Education and the Philosophy of Experimentalism* Century, 1931.

Harold F. Clark, "The Influence of Economic Forces upon Education," *Teachers College Record*, Vol. XXXII (January, 1931), pp. 323–331

George S. Counts and others, *The Social Foundations of Education* (Part IX of the report of the American Historical Association Commission on the Social Studies). Scribner, 1934.

John Dewey, *Democracy and Education* Macmillan, 1922.

Isaac Doughton, *Modern Public Education* Appleton-Century, 1935.

Frank P. Graves, *A Student's History of Education* (Revised). Macmillan, 1936.

Herman H. Horne, *The Democratic Philosophy of Education*. Macmillan, 1932.

Charles H. Judd, *Education and Social Progress.* Harcourt, Brace, 1934.
Isaac L. Kandel, "Education in a Changing World," *School and Society*, Vol. XLIII (June 27, 1936), pp. 857–864.
Grayson N. Kefauver, "An Educational Platform for 1936," *School and Society*, Vol. XLIV (Sept. 5, 1936), pp. 289–295.
William H. Kilpatrick, "A Defense of Philosophy in Education," *Harvard Teachers Record*, Vol I (November, 1931), pp. 117–122.
—— "A Reconstructed Theory of the Educative Process," *Teachers College Record*, Vol. XXXII (March, 1931), pp. 530–558.
—— *Education for a Changing Civilization.* Macmillan, 1927.
—— "Hidden Philosophies," *Journal of Educational Sociology*, Vol. IV (October, 1930), pp 59–68.
—— *Remaking the Curriculum.* Newson, 1936
—— "Social Factors Influencing Educational Method in 1930," *Journal of Educational Sociology*, Vol. IV (April, 1931), pp 483–490.
—— "Some Basic Considerations Affecting Success in Teaching Art," *Teachers College Record*, Vol XXXII (January, 1931), pp 348–358.
Walter Lippmann, "The Good Society." Serial in the *Atlantic Monthly*, beginning in October, 1936, and extending into 1937
Ernest O. Melby, "Educational Leadership in a Democratic Society," *Educational Trends*, Vol IV (June, 1936), pp 1–4, 44
Walter S. Monroe and Max D. Engelhart, *The Scientific Study of Educational Problems.* Macmillan, 1936
S. Howard Patterson, Ernest A. Choate, and Edmund deS. Brunner, *The School in American Society.* International Textbook Company, 1936
Recent Social Trends in the United States. Report of the President's Research Committee on Social Trends McGraw-Hill, 1932.
Harold Rugg, *American Life and the School Curriculum.* Ginn, 1936.
—— *Culture and Education in America* Harcourt, Brace, 1931.
Bertrand Russell, *Education and the Good Life.* Boni and Liveright, 1926.
—— *Education and the Modern World.* Norton, 1932
William F. Russell, *Report of the Dean of Teachers College for the Year Ending June, 1930*, pp. 4–17. Bulletin of Teachers College, Columbia University.
Raleigh Schorling and Howard Y. McClusky, *What Direction Education?* World Book Company, 1936.
Charles E. Skinner (Ed.), *Educational Psychology*, Ch. I. Prentice-Hall, 1936.

David Snedden, "Education and Social Change," *School and Society*, Vol. XL (Sept. 8, 1934), pp. 311–314.

—— *Towards Better Educations* Bureau of Publications, Teachers College, Columbia University, 1931.

Hilda Taba, *The Dynamics of Education* Harcourt, Brace, 1932.

Alfred N. Whitehead, *The Aims of Education and Other Essays.* Macmillan, 1929.

Elmer H. Wilds, *The Foundations of Modern Education.* Farrar and Rinehart, 1936.

John W. Withers, "How the Course of Study Should Be Determined," *Addresses and Proceedings of the National Education Association*, 1914, pp 235–243

—— "The Scope and Function of a School of Education," *Journal of Educational Sociology*, Vol V (May, 1932), pp. 538–546.

—— "What's Ahead in American Education," *Journal of Educational Sociology*, Vol. VII (May, 1934), pp. 545–562

William Withers, Agnes Snyder, and Carlton Qualey, *Current Social Problems.* Prentice-Hall, 1936.

CHAPTER II

THE RISE OF THE DEMOCRATIC SYSTEM OF AMERICAN PUBLIC EDUCATION

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European and American Systems of Education Compared

To understand and appreciate the origins and the development of education in the United States, one must have a knowledge of the ways in which the roots of our educational system go deeply into European culture. One must also realize, however, that in spite of Old World influences, the evolution of our school system has resulted in a sharp differentiation from educational programs abroad.

European Dual School Systems. On the European continent, most nations developed a dual system of schools — one set for the masses, and another for the economically and politically favored groups. Elementary and secondary schools were not the segments of a continuous, democratic school system, as in the United States, but were parallel institutions. The "elementary school" was the compartment for the common people, while the "secondary school" was the division for the aristocracy.

Those who attended European elementary schools seldom transferred to the secondary institutions. Certain forms of vocational and continuation education only were open to the common people after the completion of their rudimentary schooling. Only those trained in the secondary schools could attend the universities. At best, the secondary schools served but a small percentage of the school population. This sharp division of educational oppor-

tunity was a deliberate and effective means of perpetuating a class system of society. Frederick the Great declared that the purposes of education for the masses were: to make the common people content with their lot through recognition of the divine will, to give them a rudimentary education, and to teach them enough about their government to make them subservient to the will of their superiors. These were essentially the purposes of common education in Germany to the beginning of the Republic.

European Schools Selective. Today in France and Germany only a small proportion of those of secondary school age are in the secondary schools, while in this country nearly 65 per cent of those of proper age attend approximately 25,000 public high schools of all types maintained by communities, small and large, throughout the nation. American educational and political philosophy now takes it for granted that progress in the democratic way of life depends upon the wide extension of the benefits of secondary education.

The European secondary school, attended by a selected group of the population, attempts a narrower range of training than the high schools of America. For long periods, the European school stressed the classics as the principal content of the curriculum. Although in recent times it has given the sciences, mathematics, social studies, and modern languages more emphasis, its curriculum still deals mainly with the so-called academic subjects.

American Schools Increasingly Unselective. In the United States, where approximately six and one-half million boys and girls are in the high schools, no such homogeneous group of pupils in ability, interests, and economic and social backgrounds is available for instruction. Instead, the variation in all these characteristics is very great; and to meet these widespread individual differences, differentiated curricula have been developed. For the most part, although some special vocational schools have been established in the large cities, this country has developed comprehensive high schools which offer under one roof several or many different types of education. Thus one city school recently offered approximately 128 units of work, or enough so that a student could carry a regular

program for thirty-two years without duplicating his courses! This multiplicity of courses was organized into eighteen different curricula, each leading to some vocational objective, or centered around some subject-matter core. In Europe, however, the tendency is to differentiated institutions, so that a pupil chooses, ordinarily much earlier than here, what school to attend on the basis of his position in society, his abilities and interests, and his vocational intentions.

American Secondary Schools Free. The extension of educational opportunity in this country is due not only to a unique social and political philosophy, but also to the fact that secondary education has been made free. Secondary schools in Europe are usually tuition schools, with some free places or scholarships for those who cannot pay the fees, but who have demonstrated outstanding ability in entrance examinations. During the depression (1929–36), many communities in the United States were in danger of resorting to tuition charges to help finance the high schools. This would have completely changed the educational tradition in America, for it would have excluded from the schools large numbers of boys and girls from families with meager incomes.

Centralization of Control. Among other fundamental differences between European and American education is the extent of centralization of control. In the United States, education is a function of the states rather than of the Federal Government. Furthermore, within the states there are varying amounts, but always a large measure, of local autonomy. This is not true in Europe. There the central governments exercise direct and comprehensive control over the schools. At the time of the World War, for instance, France probably had the most highly centralized educational system in the world. Other nations were not far behind.

Features of American Schools. These, then, are among the distinctive features of education in the United States: (1) there is a one-track system of schools, an "educational ladder," leading from the elementary school to the high school, and on to the university; (2) this school system is designed for all the children of all the people, regardless of creed, social position, or economic resources;

(3) attendance at school is compulsory, in many states to the age of sixteen; (4) the elementary and high schools are tuition-free, and the state universities assess relatively small fees, (5) schools are supported by general taxation, on the assumption that they are as essential to the body politic as to the individuals who attend them; (6) education is a state, not a Federal, function, and an extreme localization of administration and supervision obtains; (7) an extended curriculum has been devised to meet as far as possible the widely varying interests and abilities of the school population.

It should be profitable to survey the main trends in the evolution of this unique school system — a system whose program seems to the European to be an audacious experiment in democracy and to entertain an extremely optimistic view of the original nature of man. Some of the principal movements in the development of modern educational theories and practices are summarized in the sections which follow

Education Is Now a Public Function

Education Long a Private Function. The state has not always accepted responsibility for the education of its youth. It was the duty of the Athenian family to provide schooling for the children. Roman schools were private-venture schools During the Middle Ages, education was the prerogative of the church, and its purposes were mainly religious. The educational leaders of the Reformation, while stressing religious training, also asserted the importance of education for the welfare of the state. Thus Luther, in his letter to the mayors and aldermen of the German cities, wrote:

> Beloved rulers, if we find it necessary to expend such large sums, as we do yearly, upon artillery, roads, bridges, dykes, and a thousand other things of the sort, in order that a city may be assured of continued order, peace, and tranquillity, ought we not to expend on the poor suffering youth therein, at least enough to provide them with a schoolmaster or two? . . . there is great need, not for the sake of youth alone, but also for the welfare and stability of all our institutions, temporal and spiritual alike, that we should begin at once, and in good earnest, to attend to this matter.

Under the influence of Luther and his followers, German states early assumed the duties of providing education for the masses of the people. The Calvinists (whose influence was to have much to do with educational history in the United States) also stressed both the religious and civic purposes of schooling. But in England, until well into the nineteenth century, there was a conviction that education was either private (in the homes of the well-to-do) or charitable (for those who could not afford to provide for themselves). Thus the great English school societies built and supported schools and provided teachers and instructional materials, for a time, without assistance of the state, and later with the aid of grants made by Parliament. It was in part because the government was gradually drawn into educational administration and supervision, by setting up conditions under which these government grants could be expended, that the state finally directly accepted responsibility for education.

Type Attitudes in America. Cubberley has described three type attitudes toward education in the American colonies.[1] Virginia and the southern colonies, strong in British institutions and sympathies, took a characteristically English attitude toward education. Children of the wealthy were educated by private tutors, and the children of the less fortunate were educated in charitable institutions. New York and Pennsylvania, and the middle colonies, left education to the church, and parochial schools flourished. In New England, settled by Puritans who had the strong Calvinistic tradition, education was characterized by the "compulsory-maintenance attitude."

It is well to remember that these New England colonies were really little church-states. In true Calvinistic tradition, they considered education to be essential for both religious and civic training, and in early times made provisions for the education of all children. In 1634 and 1638 Massachusetts had established the principle of common taxation of all property for civic purposes. Under leadership of the church, the colonial legislature passed the famous

[1] Ellwood P. Cubberley, *Public Education in the United States* (Revised), pp 23–26. Houghton Mifflin, 1934.

Massachusetts law of 1642, "which directed the officials of each town to ascertain, from time to time, if parents and masters were attending to their educational duties (education was still considered a private function): if all children were being trained in 'learning and labor and other employments profitable to the commonwealth'; and if the children were being taught to 'read and understand the principles of religion and the capital laws of the country.'" [1] Fines might be assessed to those not giving proper instruction. Even under this amount of state supervision, education as a private venture was inadequate, and the law of 1647 was passed, requiring all towns of fifty householders to appoint a teacher of reading and writing, and make provision for his salary, and all towns of one hundred householders to provide a Latin grammar school to prepare students for the university. (Harvard College had been established in 1636.)

American Policy Foreshadowed. Cubberley believes that the following principles were inherent in this early legislation:

1. The universal education of youth is essential to the well-being of the state.
2. The obligation to furnish this education rests primarily on the parent.
3. The state has a right to enforce this obligation.
4. The state may fix a standard which shall determine the kind of education and the minimum amount
5. Public money, raised by a general tax, may be used to provide such education as the state requires. This tax may be general, though the school attendance is not
6. Education higher than the rudiments may be supplied by the state Opportunity must be provided at public expense for youths who wish to be fitted for the university [2]

Knight, however, does not see so clearly in this law the beginnings of a secular state-controlled system of schools. Of the legislation, he writes:

In no American sense, however, does this appear to be a provision for public schools. The authority asserted was that of the Puritan

[1] *Ibid*, p. 17. [2] *Ibid*, p. 19.

congregation, which was identical with but was more powerful than the state. Until 1691 no person who was not a member of that church could vote in Massachusetts, and few there were who voted. They levied taxes on all to support ministers of their own faith, and under the law of 1647 they revealed their zeal to preserve and extend that faith by imposing the Puritan creed upon the children. . . . Probably nowhere in colonial education is the sectarian, or religious, motive for schools more clearly exhibited than in this act, which grew out of the extreme religious consciousness of Calvinism It is difficult to see in it the beginnings of free, compulsory, secular schools.[1]

Nevertheless, the precedent of education at public expense had been set; the importance of civic training, even if only for the Calvinistic church-state had been asserted, and when church and state gradually separated, it was not a long step toward a theory of public education

Long Struggle for Public Schools. Little progress toward the establishment of a system of public education was made in the first fifty years of our national history. Church schools persisted, and city benevolent school societies, after the English model, provided education on a charitable basis. Other influences combined to promote interest in education, however. Sunday schools, at first stressing religious training with some instruction on rudiments of learning, were frequently organized on a secular basis for instruction in reading and writing and number. The Lancastrian method of instruction, by which a pupil monitor instructed a group of fellow pupils, showed the possibilities of group instruction. Infant schools were organized to teach reading, knowledge of which had been generally required at entrance to school, but which had been secured usually at informally organized reading and writing schools and dame schools. The conquest of the frontier freed the time of children for schooling. The growth of cities created new educational needs and brought great numbers of children together. The rise of manufacturing stimulated the growth of cities and, in turn, complicated the problems of group living, which created new educational needs. The growth of the

[1] Edgar W Knight, *Education in the United States*, pp. 105–106 Ginn, 1934

labor movement also lent great force to the educational evolution, for the workers demanded the right to education at public expense and resented the charity form of schooling. Political changes also accelerated the demand for educational opportunity. Suffrage was extended widely, and with the growth of economic forces, governmental problems increasingly demanded an intelligent electorate. With the Jacksonian period, a new feeling of power surged through the people, and this democratic renaissance furthered the cause of education.

The struggle for free public schools was not easily won. Only gradually were aristocratic ideas replaced by democratic impulses. Establishment of the right of taxation for the support of schools, elimination of the pauper school idea in favor of social equality in education, the supplanting of rate-bills and other means of special and indirect school taxation by general support and free tuition, and assertion of the supremacy of the state over religious authorities were slowly but surely achieved.

Educational Leadership in the Awakening. Educational leadership played a large part in the public school revival in the period from 1835 to 1870. Long before, Jefferson had proposed a scheme of universal education in the minimum essentials, and the selection of the more able students for specialized advanced training. His proposals included free elementary education for all free children for three years, with further training the expense of which was to be assumed by the parents, and the establishment and equipment of grammar and high schools by the state. The most promising pupil from each of the elementary schools was to be educated in the grammar schools at public expense, and the most able of these, in turn, were to be "educated, boarded, and clothed" three years by the public in the College of William and Mary. This comprehensive scheme was never adopted; but probably as a result of Jefferson's insight and enthusiasm, the University of Virginia was established in 1819, a state fund was accumulated to subsidize education, and payments from this fund provided tuition for pauper children at private schools.

By 1835, at least six states had some organization of lower com-

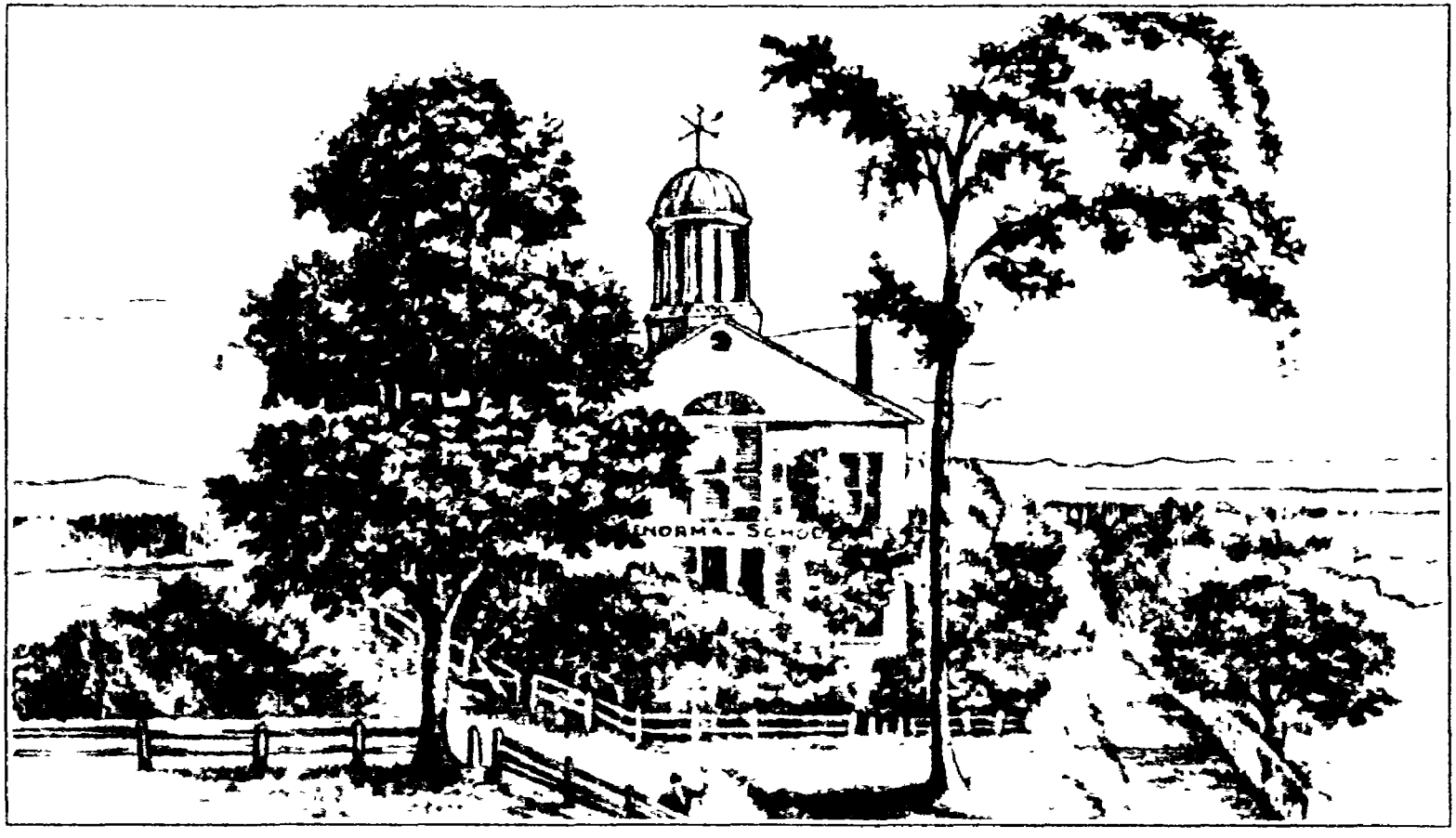
mon schools; several more had developed state school funds to encourage local initiative, and the newer states had received land grants from the government for the support of schools.

Horace Mann, perhaps more than any other person in the period of the revival, stimulated educational achievement in this country. As secretary of the state board of education in Massachusetts, he inspected the schools, gathered information about them and their pupils, and provided a valuable literature in his annual reports. In one of these reports, he described Pestalozzian instructional reforms in the Prussian schools. This report, with others on European education, had great influence on the development of elementary education in the United States. Under Mann's leadership, the first state normal school was established about 1840. Largely as a result of his efforts, the financial support of schools in Massachusetts was doubled, greater expenditures were made for buildings, the school year was lengthened, teachers' salaries were increased, and three state normal schools were established. Mann's influence was not confined to Massachusetts, but spread wherever educational statesmanship was appreciated.

Henry Barnard, who became the first United States Commissioner of Education in 1867, also had profound influence on the development of public education. He was the secretary of the state board of commissioners for common schools in Connecticut, created by legislative approval of a bill he himself introduced He left Connecticut to act as first commissioner of common schools in Rhode Island, and later returned as state superintendent of common schools in Connecticut. Like Mann, he promoted a state normal school, published valuable reports on education, and in his *Journal of Education*, which ran to thirty-two volumes, exerted widespread influence in the educational awakening.

Schools Become Free. Cubberley declares that by 1850 the principle of providing a common-school education for all children at public expense had been established in every northern state, and that a beginning had been made in the southern states as well.[1] Nevertheless, in New York State, the schools became absolutely

[1] *Op cit.*, p. 163



THE FIRST STATE-SUPPORTED NORMAL SCHOOL, LEXINGTON, MASS, 1839



Courtesy of School Life

C C.C. Radio Class in Session

free only in 1867, although six other states had made them so earlier.

State Universities Established. In the meantime the movement to establish state universities had been developing rapidly. Although the great period of university foundation and expansion occurred after 1885, sixteen states had created universities by 1860, including North Carolina, Georgia, South Carolina, Ohio, Virginia, Tennessee, Vermont, Indiana, Alabama, Michigan, Wisconsin, Missouri, Mississippi, Iowa, Utah, and Florida.

The Educational Ladder Completed. By 1800, the colonial Latin grammar school had been largely supplanted by the academy; the new and distinctive high school came into being in 1821. With the development of the high school, the "educational ladder" was established. Free elementary schools soon became numerous. The Kalamazoo Case, in which the State Supreme Court of Michigan established the right of school districts to levy a general tax for the support of high schools, was widely accepted as a precedent in legal disputes concerning the creation of public high schools. These unique institutions multiplied rapidly after 1875, becoming, in fact, the "higher common schools." The state university, with its modest tuition charges, capped the system. American schools were now prepared to evolve as a single, continuous system, an educational organization geared to the democratic way of life.

Battles over Division of State Funds. Many of the states which early created state school funds for the assistance of public schools also granted aid to private and denominational schools. Many city school funds were likewise so divided. In the early forties, chiefly under instigation of the Roman Catholics, there were many demands for state aid for denominational schools. This demand in New York City led the legislature to create a school board for the city, empowered to establish real public schools. This board was prohibited from giving any portion of public funds to schools teaching sectarian doctrines. Beginning in 1844, many constitutional amendments prohibiting the division of state school funds were adopted by the states, and nearly all the states admitted after 1848 carried a constitutional provision of the same sort.

Growth of Denominational Institutions. Although the principle of a unified state school system was thus clearly established, it must not be inferred that denominational efforts have been unimportant in our educational evolution. With the exception of Franklin's Academy in Philadelphia, which later became the state University of Pennsylvania, all the colonial colleges were established for religious purposes. A list of these colleges follows:

Year	*College*	*State*	*Denomination*
1636	Harvard College	Massachusetts	Puritan
1693	William and Mary	Virginia	Anglican
1701	Yale	Connecticut	Congregational
1746	Princeton	New Jersey	Presbyterian
1753–55	Academy and College	Pennsylvania	Non-denominational
1754	King's College (Columbia)	New York	Anglican
1764	Brown	Rhode Island	Baptist
1766	Rutgers	New Jersey	Reformed Dutch
1769	Dartmouth	New Hampshire	Congregational

In the early part of the nineteenth century, several states attempted to extend their control over some of the private denominational colleges. When, in 1816, the state of New Hampshire tried to turn Dartmouth into a state institution, the college carried its resistance to the United States Supreme Court. This tribunal decided in 1819 that the "charter of a college was a contract, the obligation of which a legislature could not impair." Although this decision led to greater zeal in the establishment of state universities, it also resulted in the rapid growth of denominational institutions, for it insured the perpetuity of their endowments. Approximately one-half the undergraduate enrollment in institutions of higher education is in denominational and private colleges and universities. Furthermore, in spite of the fact that all property owners are taxed for the support of public education, parochial and other private elementary and secondary schools are tolerated in all the states, and in 1934 enrolled about 11 per cent of the total school population.

Education Is Locally Controlled

Centralized Control in Europe. On the continent of Europe, as noted earlier in the discussion, educational administration and supervision are highly centralized. The state controls the schools directly through a central educational authority Educational objectives, the curriculum, the certification of teachers, methods of instruction, the measurement of achievement, and the supervision of the schools are in large part controlled by the central government This makes for a high degree of unity in the conduct of education from community to community, and easily holds the schools in subservience to political authority.

Decentralized Control in the United States. In the United States, the control of education is highly decentralized In the first place, education is conceived to be the function, not of the Federal Government, but of the individual states. This follows from the doctrine that the powers not specifically delegated to the national government in the Constitution are reserved to the states. Within the states, furthermore, there is broad delegation of educational powers to local communities through their school districts.

Independent Local Districts. The local, independent school district seems to have originated in New England, the section which has had so much influence on the development of American education Originally, the citizens of a New England town (comprising an area from twenty to forty square miles, and corresponding somewhat to our present civil township) were required to live within one-half mile of the church meetinghouse, near which were the town school and the town hall. All children were sent to the town school. By 1725, however, much of the town population had scattered into the farming areas, and new settlements arose at some distance from the old meetinghouses and schoolhouses. These rather isolated communities first demanded their own ministers, or at least separate services. Dame schools provided for the instruction of the young children in these remote districts, and private tuition schools were often established. The latter practice seriously affected the town schools, which usually financed their

work by tuition fees or assessments on the parents of the school-children. Finally, to hold enrollments, the town schools removed tuition charges and secured support by levying a general tax on all property in the town.

In return for submitting to this general tax, the outer settlements, or parishes, demanded either separate schools or the transportation of the central school from one section to another for short periods. The first result was the establishment of the moving town school. Finally, the town agreed to return to the local parishes or school districts, as they came to be called, the amount of the tax they had paid, with the permission to establish their own schools. Connecticut in 1766 and Massachusetts in 1789 legally granted local districts the right to elect school trustees, levy school taxes, and select a teacher. "The practical effect of these laws," says Cubberley, "was that the school system, instead of embracing schools of different types and grades, was gradually narrowed down to a one-room district school for children of all ages and in every variety of study." [1]

This small independent district form of organization spread over most of the United States. The excessive autonomy of these units has from time to time been curbed by legislative action and by specific grants of power over school affairs to state and county administrative agencies. Such matters as length of school year, textbooks, levying of school taxes, election of local school board members, certification of teachers, subjects of instruction, financial accounting and reporting, have been regulated in the interests of greater uniformity. In many states, however, the local units still have great authority, and consolidation into larger areas of support and control has proceeded slowly. In Iowa, for instance, there are still 5,066 school districts, of which only 409 are consolidated units. The total includes 2,811 independent rural districts.

It is interesting that, as public schools were first established in the cities, citizens took steps to create local independent districts

[1] *Op cit*, p 73. The outline of the development of the district system follows Cubberley's exposition.

within the municipality. The people within a ward obtained permission to organize the district, levy taxes for its support, elect its own school board, employ teachers, and provide buildings. As the number and size of these independent districts increased with the population of the city, the confusion and inefficiency of the ward schools led to their consolidation into a city district with a unified board of education. This board employed a new school officer to supervise the educational program, and so the superintendent of city schools came into being. Buffalo, Detroit, Chicago, and Cleveland were among the first to organize city-wide school systems. The term "ward schools" and the ward plan of electing members of the school board, still found in some cities, are vestiges of the old independent units within the whole.

Cubberley states that "everywhere development has been from the community outward and upward, and not from the state downward." [1] Local districts had assumed a great number of functions before state educational administration developed to an important extent. While it is now accepted that the independent school district is a creation of the state, and has only such powers as are delegated by the state, local districts exercise functions and powers never specifically delegated, but which grew up through long and carefully guarded local initiative. As a result, state boards of education and state superintendents of schools frequently have few legislatively granted powers. Their influence must be exerted largely through educational leadership and service, through the administration of certification laws, through the adoption or suggestion of state-wide courses of study, and through the administration of legislative acts governing the distribution of state aid. (Many states have a relatively small amount of this to distribute, for they soon disposed of Federal school lands for inconsequential amounts, and many raise a negligible state school fund through taxation for assistance of local districts.)

Certain states have gradually developed a more powerful central school authority. By its external examinations for high school graduation and college entrance, and the distribution of syllabi

[1] *Op. cit.*, p 212.

outlining the content leading to the examinations, the Board of Regents of New York State has exerted a powerful influence over the secondary school curriculum, and has promoted a high degree of uniformity in the schools of the state. In most states, however, the local district is entirely free to determine its curriculum, except for certain minimum legislative prescriptions such as those requiring the teaching of American history and government, state history, and the effects of alcohol and narcotics.

Disadvantages of Localism. Many disadvantages inhere in the small administrative unit, including great diversity of educational programs and standards, lack of proper physical and instructional equipment, a meager program of studies, poor teaching personnel, lack of highly trained and competent professional leadership, and economic inefficiency. One of the most severe problems is the tremendous inequality of educational opportunity which results from enormous disparity in the ability of local units to support education. These disadvantages have led to movements for greater financial assistance from the state to local districts, and to efforts to enlarge the administrative unit.

As early as 1869, Massachusetts, which originated the district unit, passed permissive legislation for consolidation, and in 1882 it abolished the district system by law and restored the old town system. This movement spread rapidly after 1890; between 1897 and 1905, twenty states authorized the consolidation of schools. The county also became a more important unit of administration. In many states the county is still relatively impotent, but in the South and West much progress has been made in the organization and administration of schools on a county-wide basis.

Advantages of Decentralization. On the other hand, decentralization has very real advantages. It may stimulate more interest and initiative in education on the part of laymen who have a sense of close relationship with their schools. Diversity of educational programs may facilitate the adaptation of the curriculum to local needs. Localism is also the best insurance against the seizure of the schools by central governments for purposes of political indoctrination and the mental and emotional regimenta-

tion of the people. The subservience of the schools to the dictators of Europe is an example of the dangerous centralization of educational authority which Americans will vigorously oppose. Some consolidation of small units and a demand for greater state support will probably continue, but that we shall maintain in this country an essentially local system of educational control seems certain.

The danger of using the schools for political purposes has caused educators to look with disfavor, if not real fear, upon the politically constituted, Federally organized and controlled programs of relief-education instituted by the United States during the depression. Most of these Federal agencies operated outside the Office of Education, and were administered by appointees of the national government rather than by the regularly constituted educational authorities of the states and local communities.

Education Has Become Increasingly Democratic

Characteristics of Democratic Schools. In a truly democratic commonwealth, the schools should have the following characteristics:

(1) They must be free, provided by the state, and supported by a tax levied upon the general population.

(2) They must minister to all the children of all the people, regardless of creed, social position, economic privilege, or political belief.

(3) They must provide for the wide dissemination of culture, for interest in public affairs for the common good, and for insight into the crucial economic, social, and political issues of the time. This objective demands that the secondary school be developed as part of the common school system, and that as such it should be tax-supported and free, and adapted to the needs of a large proportion of the population of high school age. It means also that public education from the kindergarten through the university must be organized as a continuous and unified system.

(4) They should retain pupils as long as they can profit from

common and diversified forms of education within the limits of the ability of the state to provide.

(5) They should make school attendance compulsory.

Evolution of a Democratic System. The reflection of a European class school system and the elements of a dual organization of education are to be found in the colonial period. The Latin grammar school was a selective, aristocratic institution. Like European secondary schools, it accepted young pupils, often as early as their seventh or eighth year. Elementary education was a separate development. It aimed to train ordinary boys and girls, who had no thought of professional education and social preferment, in the rudiments of religion, reading, and writing. For a considerable time, these two kinds and levels of education developed in relative independence of each other.

An aristocratic school system experienced only an abortive growth in this country. There was no dominant upper class with economic power and hereditary privileges comparable to that in Europe. The frontier conditions of pioneer life were not conducive to the differentiation of class strata in society, but to the bearing of common responsibilities. In spite of their European foundations and subsequent borrowings, the schools developed ultimately on democratic lines.

Evolution of Elementary Education. Elementary education evolved slowly before 1830. The quality of instruction, the length of the school year, and the course of study varied widely from community to community. The Federal Constitution was silent concerning education, and the states had done little to stimulate educational growth and bring about some uniformity of practice. There was no dominant form of organization in the lower schools, although Cubberley declares that by 1830 the elementary school curriculum as it persisted to 1860 was fairly well established in the better city systems.[1] For younger children, this curriculum included letters and syllables, reading, writing, language, spelling, numbers, and good behavior; for older children it offered advanced reading and spelling, word analysis, penmanship, arith-

[1] *Op. cit.*, Ch IX.

metic, geography, grammar, United States history, and manners and morals. In the first quarter of the century, schools were largely ungraded and unsystematized.

At about this time, several reports on the Prussian school system were published in this country, and created much interest and discussion. Judd believes that the pattern after which the elementary school was organized was the Prussian *Volksschule*.[1] This was a school for the masses, an end in itself, leading not to the secondary schools and universities, but only to continuation classes. It was an eight-year institution, and its curriculum was limited to the rudimentary subjects and to the vernacular. Judd declares that we borrowed all these characteristics but the first. The elementary school in the United States has not served as an instrument of class domination, nor as an educational agency for the underprivileged, but as the democratic foundation unit in a continuous system. It has served, not the common people, but "all people in common."

Some writers do not agree that the characteristics of the lower school were borrowed from the *Volksschule*, but insist that they represent a natural, native evolution. Cubberley believes, for instance, that grading was not patterned after the Prussian school, but took place in a series of steps.[2] The first was the horizontal differentiation of schools. By 1848, Providence, Rhode Island, for example, had organized its system into primary schools, intermediate schools, grammar schools, and high school. The second step was the division of each school into classes, and the final step was to provide buildings with small separate classrooms, classify pupils by grades, and outline instruction by years. Cubberley declares that this movement was merely stimulated by reports on the German system, not originated by them.

Against the theory of borrowing, it has also been pointed out that the length of elementary education has not been uniformly eight years, but also frequently seven and nine. "That the ele-

[1] Charles H. Judd, *The Evolution of a Democratic School System*, pp. 38–55. Houghton Mifflin, 1918.

[2] *Op. cit.*, pp. 384–385.

mentary school we developed was in general an eight-year school as in the German *Volksschule*," writes Cubberley, "was due to the school age of children and to a perfectly natural development, rather than to any copying of foreign models." [1]

Whether or not the *Volksschule* was responsible for the definition of the major outlines of our elementary school, it is significant for our social evolution that the elementary school grew as a democratic institution, and not as a lower-class school.

Evolution of the Unique American High School. The crowning achievement of the American people, however, is the high school. A political program as audacious as that undertaken by our people can be realized only through an educational program equally bold. The high school is unique, historically and contemporaneously, in many ways. Many of these peculiar characteristics have already been pointed out. It represents the only complete system of free secondary education in the world It is financed by general taxation. Its population has grown with baffling speed. Because the high school has become increasingly unselective, the necessity for differentiating its curricula has become imperative. The increasing popularity of the institution has led one writer to call it "The American Road to Culture." [2] It is the expression of the faith — at times, certainly, a rather blind and naive reliance — of a people in the achievement of democratic institutions through the medium of education.

The First Secondary School. Secondary education in the United States, however, has been by no means as democratically conceived or conducted throughout its history. The first secondary school was the Latin grammar school, brought by the New Englanders from the old country, and modeled after the English classical grammar school. It was a class school by definition of function. It could have been nothing else by nature of its curriculum. It was designed to prepare young men for Harvard College — and later the other New England colleges, which in turn were created principally to train men for the ministry. The curriculum was

[1] *Op cit*, p 366.

[2] George S Counts, *The American Road to Culture* John Day, 1930

composed primarily of Latin and Greek. This institution reached the peak of its development about 1750, and it was not until the period of its decline, 1815–25, that such subjects as mathematics, geography, and history were added to the classics. Furthermore, these schools were narrowly humanistic in nature. During the brightest days of the Renaissance, Latin and Greek were studied as a means of understanding the life and spirit of ancient times — a really humanistic revival. The Renaissance secondary schools soon reverted to formalism; the language became more important than the literature, and the curriculum was unrelated to human life. The grammar school was brought to America in its narrow, late Renaissance tradition. Because of its content, its purpose, and its form of instruction, the Latin grammar school could not serve even the most elementary needs of a new democracy. It was merely the bridge between Old World culture and a new educational tradition.

The Academies. The academy, again an American adaptation of an English institution, supplanted the Latin grammar school. It reached the peak of its popularity about 1850, and declined rapidly thereafter. A realistic revival in European secondary schools had forced them to give way to the growing field of science, to history and geography, to mathematics, and to modern languages. These subjects were included in the American academies, and to them were added such practical ones as commerce, surveying, public speaking, applied science, and mathematics.

The academies extended secondary education to girls, popularized the idea that secondary education was valuable for those who would not go to college, and greatly enriched the program of studies. These services constituted an essential step in the development of a democratic system of secondary education. The academies, nevertheless, were private institutions (although they were sometimes aided by public funds); they usually charged tuition, and were still highly selective. This form of education was soon to be found insufficient in a society rapidly growing in democratic spirit and institutions, and facing new and complex problems. There was a steadily increasing demand for broad

preparation for life and for educational opportunities in local communities.

The High School Idea. The first high school was established in Boston in 1821. It was called, at first, the English Classical School, but was soon named the English High School. It is significant that this school was primarily concerned with preparation for life pursuits in the mercantile and marine fields, and did not propose to prepare students for college.

The principal subjects in the curriculum of the new school were English, declamation, science, mathematics and its applications, history, and logic. With the expansion of the high school idea, other subjects were added, including manual training, drawing, and home economics, forerunners of the modern industrial arts courses. Latin and modern languages were added, and intellectual and moral sciences were commonly offered. The number of high schools grew rapidly in the last quarter of the nineteenth century, and unusual expansion occurred after 1900. The growth of this new school filled the gap between the common elementary schools and the newly organized state universities.

Formalism Overtakes the High School. The daring purpose of developing a high school devoted to the training of students for the practical affairs of life was not easily attained. Historical analysis reveals that educational reform usually means, not a fundamental revision of the old curriculum, nor an elimination of useless subject matter, but the retention of the old materials and the addition of new ones. Thus, although Latin, once of great practical importance as the only learned and common language of western Europe, lost its utility with the growth of vernacular languages and their use in the schools, it dominated the secondary school curriculum for several hundred years. When subjects have outlived their original purpose, they have usually resisted banishment by pleading value for "culture" or for "mental discipline."

Formalism of this sort quickly overtook the American high school. Furthermore, the colleges and universities, through the device of entrance requirements, put powerful obstacles in the way of realizing the original purpose of the school. As the colleges

grew stronger, they increased the amount of training demanded for admission. This resulted in shifting some of the college work to the lower level and in lengthening the period of high school education. The higher institutions also asserted a preference for certain subjects, on the thesis — never demonstrated and recently exploded through careful research — that these subjects were of supreme value as preparation for college training. Since the high school supplanted rather quickly most of the other forms of secondary education, and since increasing numbers of students attending the new institutions wished to attend college, it was necessary for the school to meet the entrance demands of the higher institutions.

Most of the high schools established were small, making a diversified curriculum impossible. The typical American high school, organized primarily to meet the needs of those who would not attend college, and always devoted, in principle if not in fact, to the utilitarian view of education, thus became a college preparatory institution. Furthermore, the curricula of these schools were dominated in nearly every case by textbooks written by subject-matter specialists whose purpose was to train students in the narrow academic disciplines.

Movements for Reform. Only in very recent days has there been a real release of high schools from the bondage of college entrance requirements. In the West, particularly, the colleges and universities are liberalizing the entrance requirements, and one state university has discontinued the practice of requiring certain subjects for entrance to its college of liberal arts.

A renaissance in American secondary education seems to have begun about 1900 with the realization that the high school had fallen deeply into tradition. Professional training in education has advanced rapidly since the beginning of the century, and as a result, a functional interpretation of secondary education has been evolving. This view of the educational problem is founded on the science of individual differences, which has focused attention on the abilities and needs of pupils. Modern educational theory also stresses the aim of social-civic usefulness. The high school seems

destined soon to take new form — to begin more fully to realize its early intention of preparing young men and women for the basically important activities of life.

Demands for Extension of Education. Changing social, political, and economic conditions of our time have made new and insistent demands on the schools. While funds to finance education melted alarmingly, and often tragically, during the depression, the number of students in the high schools increased rapidly. Industry had been consistently employing fewer workers through the mechanization of the processes of production. Economic chaos further abnormally restricted employment. New apprentices were not needed in the skilled occupations. Boys and girls who would have worked in normal times remained in school. High school graduates, and college graduates as well, became the lost generation. No positions opened, no opportunities beckoned. This condition led to a persistent demand for post-high school education.

The public school will undoubtedly devise ways of serving this need. As one means of doing so, the upward extension of public secondary education into the junior college field, starting with the establishment of the Joliet, Illinois, junior college in 1902, will probably become increasingly common.

The many enterprises in adult education which are now being created represent a still greater extension and democratization of educational opportunity. One of the most promising ventures is the new Center for Continuation Study opened by the University of Minnesota in 1936. Its program is devoted to those who wish to supplement high school, college, or professional training. It will promote means for men and women to spend relatively short periods in serious and intensive study of problems related to their professional, civic, or cultural interests. Other significant programs are being sponsored by the Division of General Education, New York University, the Pennsylvania State College, Indiana University, and many other institutions. New civic and vocational demands on the individual, and the creation of more leisure time for all, will lead to a great expansion of adult education in the future.

Need of Greater Articulation of Units

A Continuous but Poorly Articulated System. It should now be apparent that the school system of the United States did not develop either as a completely indigenous institution (except, perhaps, for the high school) or as an articulated whole. Rather, its units were created, or borrowed and adapted, at different times, and loosely fitted together into a sequential arrangement. This has resulted in a peculiar lack of integration and articulation between the various levels of training.

The dominant form of organization established by 1900 was the 8-4-4 plan. Whether patterned after the *Volksschule* or not, there was no scientific educational, social, or psychological reason for making the elementary school eight years in length, for limiting it to rudimentary subjects, or for confining instruction to the vernacular. The high school, although a somewhat gradual transition from the more exclusive academy, and more remotely from the narrow Latin grammar school, was an institution peculiar to our culture. Although it was superimposed upon the elementary level, it was nevertheless not closely articulated with it in terms of pupil growth. The four-year liberal arts college is a descendant of the English college through the medium of Harvard The graduate school, for entrance to which a degree from a four-year college is required, seems to have been inspired by the German university.

The school system, while it is a ladder, has thus arisen from diverse sources and does not represent a planned whole, but a series of schools brought together through accretion of practice.

Proposals for Reorganization. The problem of relating this sequence of schools one to another functionally, in terms of pupil progress, was the subject of formal study as early as 1893. In that year, the Committee of Ten, composed largely of college professors under the chairmanship of President Eliot of Harvard, made far-reaching recommendations for the unification of the school system. The report declared that preparation for college was also the best preparation for life. It recommended the substitution of a relatively few subjects for the many and diverse short

offerings which had grown up, and the organization of four optional curricula: classical, Latin-scientific, modern language, and English. The committee favored a 6-6 instead of an 8-4 organization, and proposed the enrichment of the work of the seventh and eighth grades with subjects ordinarily reserved for the high school.

Other committees added support to the movement to shorten the period of elementary education to six years. Under sponsorship of the National Education Association and its subsidiary organizations, the following groups discussed the problem: committees on the Correlation of Studies (1893–95), on Six-Year Courses (1905–09), on Economy of Time in Education (1905–13). A new orientation for secondary education was contained in the report of the Committee on the Reorganization of Secondary Education (1913–18).

President W. R. Harper of the University of Chicago proposed in 1902 that the lower school should be limited to six years, and the seventh and eighth years be incorporated in the high school. He added the still more revolutionary suggestion that the secondary school should be extended upward to include the first two years of the liberal arts college.

A series of studies following these proposals emphasized the break in curriculum, methods of teaching, and school life between the eighth and ninth grades. This gap was evidenced by pronounced elimination at the end of the elementary school and by excessive failures and withdrawals in the first year of high school. Although new "content" and "expression" subjects were being added to the elementary school program, critics charged that the seventh and eighth grades were still spending pupils' time primarily in a stultifying and formal review of the drill subjects.

The junior high school was a new institution created to effect a better transition between the upper and lower levels of the public school system in order that education might become in fact a more continuous process. These new schools multiplied rapidly after 1910, and in many communities the 6-3-3 plan was substituted for the traditional 8-4 organization.

Relating College and Secondary School. The college employed

standardization procedures and entrance requirements as a means of relating secondary and higher education The Committee on College Entrance Requirements, in its report in 1899, accepted the principle enunciated by the Committee of Ten, that all subjects studied for the same length of time were equal to one another. It also defined the high school curriculum in terms of time-allotments; however, it recommended that English, foreign language, mathematics, science, and history be required of all pupils.

The Carnegie Foundation for the Advancement of Teaching accepted and defined the time-unit formula for measuring high school education. It stated that a unit was equivalent to a course of five periods a week throughout an academic year. Higher institutions have generally based admission on presentation of a given number of units (usually 15) distributed among subjects acceptable to their faculties.

The effort to standardize entrance requirements, and thereby to control the high school program indirectly, was furthered by formation of such voluntary organizations as the New England Association of Colleges and Secondary Schools (1885), the Association of Colleges and Secondary Schools of the Middle States and Maryland (1892), and the North Central Association of Colleges and Secondary Schools (1895).

In spite of efforts to differentiate secondary and higher education, however, no clear line of demarkation has been established. The growth of the elective system and the gradual liberalization of college entrance requirements in recent years, under pressure of secondary schoolmen, has served to perpetuate, and in some instances to increase, the overlap between college and high school. It is increasingly clear that much of the work of the first two college years is secondary in character; it is frequently possible to secure the training in either institution.

Although the public junior colleges were generally attached to high schools, they attempted more to duplicate the first two years of college and university than to relate themselves organically to the high school, and the result was a 6–3–3–2 organization, a system with many breaks. To incorporate into one institution

all work fundamentally secondary in character, to avoid so many transition points in the sequence, and to articulate junior college and senior high school, the 6–4–4 plan has been proposed, and is in operation in several school systems. The adjustments designed to achieve real continuity in the educational experience of pupils will be detailed in later chapters.

Trend Toward Professional Control

Lay Control of Schools. Early New England school practice represented purely lay control of education. Citizens controlled both civil and educational affairs directly through the town meeting. The people themselves decided upon the school calendar, the provision of buildings and equipment, the financing of education, the curriculum, and the appointment and salaries of teachers.

From time to time it was desirable to appoint, in town meeting, temporary school committees charged with the exercise of certain specific functions, such as buying a school site or visiting the schools to evaluate the methods, content, and results of instruction. As community affairs became more complex, many powers were delegated to an executive committee of the town meeting, called selectmen. These representatives ordinarily were charged both with civil and educational duties.

With the growth of schools and the increase in civil functions, however, these selectmen found it desirable in turn to delegate educational functions to a committee of their members. Finally, it became the custom to select a separate school committee, the forerunner of our modern school board. These boards ultimately assumed "all the duties which the various special committees were accustomed to perform. Schools were small; teachers had no special professional training; there were no trained supervisors, principals, and superintendents. These early school boards were compelled to transact every item of business and to supervise the work of the schools. There was no one else to do it. Their relations to school activities were quite direct." [1] In other words,

[1] National Education Association, *The School Board Member*. Research Bulletin, Vol. XI, No. 1, January, 1933, p. 22.

these laymen exercised directly functions which are now clearly understood to be professional in nature, depending upon comprehensive, special, and scientific training.

It should be noted that the town meeting frequently retained direct control of school finance, delegating only strictly educational or instructional functions to the school committee. In some New England communities, the school budget still must be approved in town meeting, and in certain large cities the school board is fiscally dependent in part upon the civil government — meaning that some control, or at least the right to approve the budget of the school board, is vested in the civil authority. In general, however, the school board is now independent of the civil unit in which the schools may be situated.

Beginnings of School Supervision. Soon finding inspectional and supervisory duties somewhat beyond their abilities, school committees and boards frequently delegated such functions to the clergy. This deputation represents the beginning of school supervision in this country. Ministerial supervision, however, was another instance of lay control, as far as special professional educational training was concerned.

School committees, even with the assistance of a clerical inspector, ultimately found the problems of internal organization, administration, and instruction too many and too complex to be handled directly. The first delegation of administrative authority was the appointment of a head teacher, who really was little more than a clerk for the school board. In the cities, the problem of administration increased rapidly with the consolidation of district school boards into city-wide boards of control. This situation led to the appointment of an officer of the board who became known as the superintendent of schools.

First Superintendent of Schools. The first such official was appointed in Buffalo in 1837, when, as a city of 15,000 people, it operated seven one-teacher schools. Cubberley and Eells report that the first superintendents were frequently laymen — professional administration of education was still to be achieved. Businessmen were often appointed, and in some cities the execu-

tives were nominated and elected in the beginning at the local city election.[1] These men were little more than clerical officers, however. The development of professional school supervision waited upon awareness of the complexity of educational problems and upon the systematic and scientific study of education.

An Executive Officer of the Board. The office of superintendent of schools developed in extralegal fashion. Ordinarily, there was no legislative definition of the powers and duties of the board and the superintendent, nor of the relations between them. Recognition of the need for trained educational leadership preceded the realization of the importance of unifying educational and business administration under one executive officer of the board. Thus, purely educational functions were delegated to the superintendent, while the financial administration of the schools was held in the board or delegated to the secretary or to a special officer directly responsible to the board. Only gradually have boards of control relinquished direct supervision of educational finance and acknowledged that educational administration cannot be exercised with integrity without close correlation with business administration. The tendency in recent years has been to abolish coördinate executive officers and make the superintendent of schools the chief executive head of the school system. Assistant superintendents of instruction, research, and finance are now ordinarily responsible to the superintendent of schools, who unifies and integrates the operation and control of the school system, and is solely and directly responsible to the board of education.

The surrender of professional functions to executive and administrative officers has taken place slowly. Many vestiges of the early administrative and executive functions of boards of education still remain. The principal one is the common practice of appointing standing committees of the board to deal with such matters as teachers, janitors and janitor services, textbooks, courses of study, and other educational matters. There is an inevitable tendency, without shrewd leadership by the superintendent of schools, for

[1] Ellwood P Cubberley and Walter C. Eells, *An Introduction to the Study of Education*, p. 98. Houghton Mifflin, 1933.

these committees to exercise direct supervisory and administrative control. These practices are remnants of lay control over education. Under the leadership of competent professional school officers, however, many boards of education have arrived at a functional definition of the duties of the board and the chief executive officer. Beginning about 1900, boards of education began to confine their powers to legislation (policy-making) and appraisal (evaluation).

QUESTIONS, PROBLEMS, AND CHALLENGES

1. Contrast European and American ideals of education
2. Outline the influences which resulted in the recognition that education is a public and not a private function
3. Which of the three colonial type-attitudes toward education has most affected the history of education in the United States?
4. Massachusetts scored many "firsts" in the history of our educational system. Using standard texts in the field, outline these contributions.
5. What factors were probably responsible for the separation of church and state in this country, and for the secularization of education?
6. Why are compulsory attendance laws essential to a democratic system of education?
7. Explain why interest and progress in educational affairs lagged during the first quarter-century of national life.
8. Would you consider it advisable to eliminate all private and parochial elementary and secondary schools in favor of a state monopoly in education?
9. Why is education under the auspices of the state in constant danger of developing an excessively nationalistic spirit? Suggest means of avoiding this situation.
10. Trace the development of the independent district form of school administration and control. What types of districts are found in your state?
11. Prepare a paper on centralization of school administration in France, Germany, or Italy, and show how such school systems may become subservient to dictatorships.
12. What influences directed American schools in democratic evolution in spite of European foundations and borrowings?

13. Why is the public high school so essential for political democracy?
14. Is differentiation of curricula for students of varying interests and abilities democratic or undemocratic?
15. Outline the development of the program of studies in the elementary school and in the secondary school.
16. What changes in the nature of the school population have accompanied the tremendous increase in secondary school attendance? What educational adaptations do these changes make necessary?
17. Trace the development of the high school in your community
18. Give instances of formalism in secondary education. To what extent are these the effects of traditional content, methods of teaching, or organization around subjects rather than life activities?
19. What subjects did the term "humanities" traditionally include? What criterion would you propose for deciding whether a subject should be included in the humanities?
20. Do you believe that the best preparation for college is also the best preparation for life?
21. What effect on the secondary school curriculum has the domination of college entrance requirements had?
22. Explain the junior high school and junior college movements as efforts to achieve better articulation between the levels of the school system.

SELECTED REFERENCES FOR FURTHER READING

Richard M. Benson, "Development of the Secondary School in the West between 1890 and 1920," *School and Society*, Vol XXXV (Feb. 20, 1932), pp. 260–262.

Wayland J. Chase, "'The Great Awakening' and Its Educational Consequences," *School and Society*, Vol. XXXV (Apr 2, 1932), pp. 443–449.

George S. Counts, *Dare the School Build a New Social Order?* John Day, 1932.

—— *The American Road to Culture.* John Day, 1930.

Ellwood P. Cubberley, *Public Education in the United States* (Revised) Houghton Mifflin, 1934.

Isaac Doughton, *Modern Public Education*, Chs. I–IV. Appleton-Century, 1935.

Frederick Eby and Charles F Arrowood, *The Development of Modern Education.* Prentice-Hall, 1934

Educational Policies Commission, *The Unique Function of Education in American Democracy*. Educational Policies Commission, 1936.

Samuel Everett (Ed.), *A Challenge to Secondary Education*. Appleton-Century, 1935.

Joseph K. Hart, *Creative Movements in Education*. Holt, 1931.

—— *Democracy in Education*. Century, 1923.

Charles H. Judd, *The Evolution of a Democratic School System*. Houghton Mifflin, 1918.

—— "The Historical Development of Secondary Education in America," *School Review*, Vol. XLIII (March, 1935), pp. 173-183.

Isaac L. Kandel, *Comparative Education* Houghton Mifflin, 1933.

—— *History of Secondary Education* Houghton Mifflin, 1930.

National Education Association, Department of Secondary School Principals, *Bulletin*, Vol. XIX, No. 55 (March, 1935), "Tercentenary Celebration Number"

—— *Bulletin*, Vol XX, No. 59 (January, 1936), "The Issues of Secondary Education"

Edward H Reisner, *Evolution of the Common School*. Macmillan, 1930.

Edward H. Wilds, *The Foundations of Modern Education* Farrar and Rinehart, 1936.

CHAPTER III

THE EVOLUTION OF EDUCATIONAL AIMS AND METHOD

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INDIVIDUALITY AND SOCIALIZATION

Out of the age-long conflict between the individual and the mass has come the realization that there is a twofold function of education: the encouragement of individuality, and the creation of a broad social consciousness. Educators are now convinced that individualization and socialization are complementary and not antithetical processes.

The Individual Submerged in the Group. Modern democracy gives lip-service, at least, to the proposition that social organization exists only for the good of individuals. In the primitive world, however, the individual was submerged in the group. The entire purpose of education was to perpetuate the social organism without change. This aim could be attained only by demanding strict conformity of the individual to the body of custom and belief which marked out comprehensively the ways of life. The details of living were minutely defined. These mores were fixed and final. That which existed was true and right. The individual had no part in the development of these social habits; they were the product of slow social accretion. The individual really had no sense of past or future, such as a concept of social evolution would provide. The means of survival at hand were accepted as the ultimate means of social perpetuity.

Individual Development for the State. With the Athenians, however, the individual came to a consciousness of self. Athenian

education was devoted to the development of the individual morally, intellectually, socially, physically, and aesthetically. No one of these aspects of personality was developed at the expense of any other. The fully rounded person was the ideal. It is significant, however, that individual culture and development had only one acceptable end: service to the state. Athenian life was still at its center a folkway civilization. The individual's devotion to the welfare of the state was for the principal purpose of maintaining the *status quo*. This is clearly revealed in the Ephebic Oath, which had to be taken by the youth before they entered upon the last two years of civic and military training preparatory to full citizenship. The neophite pledged himself to protect the state by military action; to fight for "temples and public property"; to obey the magistrates; to "observe both the existing laws and those the people may hereinafter make, and if any person seek to annul or set them at naught," to "do my best to prevent him"; and to honor the religion of the fathers.

When, during the Periclean Age, the old customs lost their authority, and individualism replaced the old devotion to the social order, Greek culture and political prestige rapidly disintegrated. The Athenians had not yet developed the ideal of a progressive society, and had not been able to combine the ideals of cultivation of personality and social responsibility.

Citizenship Education in Rome. Education for citizenship had a brilliant inning in Rome during the Republic. The purpose of schooling was to prepare a select group for service to the state. The core of the curriculum was composed of Greek and Latin grammar and literature, and of rhetoric, including declamation, extemporaneous speaking, and debating. Under Roman despotism, however, the citizenship aim of education necessarily degenerated, and oratorical training was acquired for formal and artificial purposes only.

Medievalism Puts System First. The Athenians had given individual man a reason for existence. Although much of the spirit of Greek education was stifled in the rather objective and utilitarian Roman adaptation, man as citizen had a brief rôle to play

in Roman history. The world returned to its primitive view of the individual in the comprehensive medieval system. Man again became an atom in an all-inclusive politico-religious scheme. Medievalism was a fixed and final, an authoritative system in which the individual counted for little or nothing, the system everything. It stressed an otherworldly view of life. Life in the real world of things and persons; man's wants, needs, strivings; his complex reactions and experiences in the world of sensation — all were asserted to be unreal. The only actuality was membership in a hypothetical world of ultimate ideas somewhere far removed. Life was completely circumscribed by external formulae. This absolute and medieval system, says Hart,

> . . . persists in ceremonials, rituals, beliefs, creeds, doctrines, and scriptures which soothe and satisfy the soul; it offers a comprehensive life to humanity, it answers all questions that rightly may be asked, it promises all that the universe has to give as a reward for faithfulness and obedience. . . . The whole of the "modern world" struggle is an effort to escape from the iron implications of this medieval system into greater freedom along all those lines that seem to be humanly valuable and worthy of effort.[1]

Individual development can mean nothing without freedom of the mind, freedom to learn, and the right and the courage to come to one's own conclusions. The culmination of educational method in the Middle Ages was scholasticism. The scholastics were the apologists for church doctrine. Such men as St. Anselm and St. Thomas Aquinas, applying the method of "logical" analysis, stated the proposition, assembled the arguments pro and con (those in support of the dogma of the church were always more convincing), *and drew for the learner a dogmatic conclusion.* Among the scholastics was one Abelard — the precursor of a new freedom. Abelard marshaled the arguments for and against a thesis as honestly as he could — *and left the conclusion to the learner.*

It is dangerous for authorities who wish to control the mind to permit men to sense its inner power. The scholastics whose pur-

[1] Joseph K. Hart, *Democracy in Education*, pp. 156, 157. Century, 1933.

pose was to enforce intellectual belief, and the teachers in the medieval universities who worked to the eternal glory of the church, little realized that when the fetters of the intellect are once loosened, they may ultimately be brushed rudely aside.

The Humanistic Revival. The inevitable revolt against the "iron folkways" of medievalism came with the Renaissance. The humanity of man, so boldly — and tragically — asserted by the Greeks, so humbly but so prophetically stated by the Christ, and so stifled by the intellectual and emotional tyrannies of the Roman church-state, was asserted again. The individual man who was also the social man was created by the Northern Renaissance, which was identified with the Reformation. On the side of learning, there was a life-giving study of the humanism of the ancients. On the side of religion, Luther asserted the authority, not of the church, not of the Bible, but of man's own mind and heart. Again formalism soon crowded out humanism in education; Ciceronianism, with its artificial imitation of classical models, usurped education. Luther himself recanted his religious individualism and ultimately established his own catechism as an external religious authority. The absolutism of states and monarchs, frequently coupled with the coöperative authority of religion, destroyed the promise of human personality and personal values so hopefully offered in the awakening.

The Struggle for Freedom. The insistent, driving urges of man's nature, however, cannot be denied as human beings blunder on toward self-realization. So there was a Voltaire who pitted the aristocracy of the intellect against the aristocracy of religious and political domination. There was a Rousseau, who placed more faith in emotion than in intellect, and who made the strivings of common man articulate. There was the French Revolution, and the American revolt from civil and religious persecution. In the new land there was begun an audacious experiment in democracy based on declarations of individual liberty and equality and on assertions of the validity of collective opinion and judgment.

There was the gradual wresting of powers from the monarch by the people of England, and a growing recognition of human

rights among the other monarchial governments of Europe. With the end of the World War, the German people realized the promise of their natures and of the centuries in the new Republic. With democracy, the individual came into his own, for the democratic way of life believes in evolution, not in the stability of fixed systems. Freedom of the mind, the right to examine all questions and follow truth wherever and against whatever it may lead, freedom to express one's convictions, freedom of the press, the free ballot — these are the foundations of democracy. This way of life depends upon the greatest possible release and development of individual initiative, ability, and idealism, for it rests upon the premise that from the best fruits of individual development common purposes, universal judgments, and concerted action for the common good will arise.

The Individual under Dictatorships. The World War that was to have made democracy secure made its status more precarious than for generations past. In the dictatorships of Europe man again exists only for the state; he has become a puppet of authoritative systems and class domination; his mind is no longer his own; his deepest impulses are again denied; he may no longer exercise the personal judgment and initiative which are the mainstays of democracy. Conformity is the social criterion. Surrender is the dominant mental and emotional pattern. Uncritical and unreasoned acceptance is the educational method.

Individual and Citizen. To thoughtful men, the resolution of the old dilemma of the conflict of the individual and the mass, of the individual and the citizen, seems entirely possible. Modern educational agencies are expected to promote the maximum development of the individual's aptitudes and abilities, encourage self-dependence and initiative, and stimulate habits of vigorous and fearless criticism and evaluation. The inner reaches of man's spirit need to be nurtured and protected. Freedom of learning and teaching, freedom of speech, and freedom of written expression must be protected at any cost.

The individual man needs, in this increasingly more interdependent world, to be socialized. If "rugged individualism" means

unrestricted personal action, then it has no place in a coöperative, democratic commonwealth in which human values are of paramount importance. Bertrand Russell has written that "individualism, although it is important not to forget its just claims, needs, in a densely populated industrial world, to be more controlled, even in individual psychology, than in former times." [1] In a democratic society, these restrictions of personal action must be adopted and administered by enlightened citizens themselves, not promulgated by fiat even of a beneficent dictatorship. Russell writes again, that "if a man's life is to be satisfactory, whether from his own point of view or from that of the world at large, it requires two kinds of harmony: an internal harmony of intelligence, emotion, and will, and an external harmony with the wills of others." [2] Education must result in the maximum development of individual personality consistent with the common good. The solution of the problem of social welfare and stability is not the atrophy of the person, but the infusion of deep social passion, founded on profound human sympathy. The whole history of education can be interpreted as the slow awareness of this twofold nature of the educational process.

History of Curriculum Development

Primitive Education Real. Although the education of primitive man led to non-progressive adjustment, it was directly related to life activities, and learning proceeded through imitation and direct experience. It was learning by doing. Hart describes the content and method of primitive education as follows:

The children imitate, they are absorbed into the common activities; they share the group activities as far as possible actually, and they go beyond present possibilities by play and imitation. They even share the group excitements and emotions in the presence of dangers; they hear the tales of war and of adventure and they relive these tales in imagination; they see the effects of hardship, danger, or death; they share in the celebrations of victory; they are thrilled by the stories that return-

[1] Bertrand Russell, *Education and the Modern World*, p. 236. Norton, 1932.
[2] *Ibid*, p. 237.

ing hunters or warriors tell when the group is gathered around the common fire after the work of the day is done. These primitive children live in the very midst of this group life. Its industry, its politics, its morality, its religion, its social demands wrap them around from infancy, moulding their growth and becoming their education. Thus their education is not of books, or schools; it is not bookish and remote from life; it is not intellectual and academic. It is immediately useful, easily understood, valuable in the life of the group.[1]

This is a description of education in its *informal* setting, where it is closely identified with life. Contrast the reality of this kind of learning with the bookishness of the modern school, with subject matter as a substitute for experiences, with the lag that now exists between the curriculum and the demands of modern living, with the current confusion of education with mere schooling, and with the definition of education as knowledge rather than power to do.

Educational Realism in Athens. Education in the Homeric period of Greek history was still closely related to the activities of the people. The man of wisdom, who might give his sagacity to the councils of state, and the man of courage, who might protect his state against its enemies, were the ideals. Education was training in the arts of statesmanship and of war. The method of civic education was imitation and emulation of the elders, and also actual participation in forums on public affairs. Both for civic and military purposes, a kind of apprenticeship was established, so that practice in the activities to be learned was emphasized.

Civic training, therefore, was the dominant type of training in early Athenian education, and all other types were subordinated to this end. Physical training was carefully organized, but this was for the purpose of developing grace and harmony rather than mere strength and brawn. Moral training emphasized the old virtues of the Homeric heroes and also the virtues essential to the service of the state. Intellectual training was of the type needed for the activities of the assembly and the market place. Music, poetry, and dancing were taught not as a means of pleasure and amusement, but as an ennobling influence on intellect and morals;

[1] *Op. cit.*, p. 20.

as a means of developing personality and "elevating the soul", of providing a type of real cultural training. . . .[1]

The method was of training rather than instruction. Although memorization and rote reproduction were at times resorted to, most of the outcomes of learning resulted from actual participation in the activities of life. Education was not yet bookish and artificial.

Formalism Begins. In the Periclean Age, when the ideal of individual, well-rounded development for the service of the state had been to a great extent replaced by education for personal advantage and enjoyment, a new artificiality and formality of procedure which was a perversion of the teaching method used by the great master, Socrates, took hold of the higher schools. Grammar, rhetoric, declamation, argumentation, and "human" philosophy were added to the curriculum, but much of the time was spent in collecting sterile information, in debating futile topics, and in memorizing formal speeches. The lecture method of teaching, substituting instruction for learning by doing, began to dominate the schools. Educational formalism had begun.

Primitive Roman education was as direct as that of old Athens, and, as was pointed out before, there was a real relation between education and citizenship in Rome under the Republic, where the citizen was the orator. Formalism entered when this civic function was dissipated by the imperialists, and rhetoric and oratory were used for mere affectation and personal display. Education failed also to develop the moral stamina of an earlier Rome. Schooling had lost contact with the realities of life.

It was during the Graeco-Roman period that a definition of liberal education was created which has dominated educational thinking for two thousand years. The liberally trained man was defined as the one steeped in the language and the literature of the Greeks and the Romans. To this day, there are many who believe that the core of a liberal education is in the classics, and that language study is the essential basis of culture and of mental disci-

[1] From Elmer H Wilds, *The Foundations of Modern Education*, p. 93. Copyright, 1936, by Farrar and Rinehart, Inc , publishers

ing hunters or warriors tell when the group is gathered around the common fire after the work of the day is done. These primitive children live in the very midst of this group life. Its industry, its politics, its morality, its religion, its social demands wrap them around from infancy, moulding their growth and becoming their education. Thus their education is not of books, or schools; it is not bookish and remote from life; it is not intellectual and academic. It is immediately useful, easily understood, valuable in the life of the group.[1]

This is a description of education in its *informal* setting, where it is closely identified with life. Contrast the reality of this kind of learning with the bookishness of the modern school, with subject matter as a substitute for experiences, with the lag that now exists between the curriculum and the demands of modern living, with the current confusion of education with mere schooling, and with the definition of education as knowledge rather than power to do.

Educational Realism in Athens. Education in the Homeric period of Greek history was still closely related to the activities of the people. The man of wisdom, who might give his sagacity to the councils of state, and the man of courage, who might protect his state against its enemies, were the ideals. Education was training in the arts of statesmanship and of war. The method of civic education was imitation and emulation of the elders, and also actual participation in forums on public affairs. Both for civic and military purposes, a kind of apprenticeship was established, so that practice in the activities to be learned was emphasized.

Civic training, therefore, was the dominant type of training in early Athenian education, and all other types were subordinated to this end. Physical training was carefully organized, but this was for the purpose of developing grace and harmony rather than mere strength and brawn. Moral training emphasized the old virtues of the Homeric heroes and also the virtues essential to the service of the state. Intellectual training was of the type needed for the activities of the assembly and the market place. Music, poetry, and dancing were taught not as a means of pleasure and amusement, but as an ennobling influence on intellect and morals;

[1] *Op. cit.*, p. 20.

as a means of developing personality and "elevating the soul"; of providing a type of real cultural training. . . .[1]

The method was of training rather than instruction. Although memorization and rote reproduction were at times resorted to, most of the outcomes of learning resulted from actual participation in the activities of life. Education was not yet bookish and artificial.

Formalism Begins. In the Periclean Age, when the ideal of individual, well-rounded development for the service of the state had been to a great extent replaced by education for personal advantage and enjoyment, a new artificiality and formality of procedure which was a perversion of the teaching method used by the great master, Socrates, took hold of the higher schools. Grammar, rhetoric, declamation, argumentation, and "human" philosophy were added to the curriculum, but much of the time was spent in collecting sterile information, in debating futile topics, and in memorizing formal speeches. The lecture method of teaching, substituting instruction for learning by doing, began to dominate the schools. Educational formalism had begun.

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pline. With the advent of the Roman grammatical and rhetorical schools, a new content was available — a foreign culture and a foreign tongue. Under the influence of these materials, education in the future was to become bookish and remote from life. It was to become excessively formal, because it was not long until the *means* (language) of getting at the literature and culture of a foreign and a past civilization became the *end*. The declension of nouns, the conjugation of verbs, and the parsing of sentences were to be substituted for the understanding and appreciation of racial experience. This is formalism at its worst.

Form before Spirit. The formalisms of medieval education were many. Much of the content of monastic education was memorization of the Scriptures and the writings of the church fathers. The formal study of grammar is well illustrated in the conventionalisms of Donatus's Latin Grammar. The church stifled critical evaluation of its doctrines, and regimented the mind of its students through the dialectics of scholasticism. Instruction was often little but the dictation of glossaries, to be memorized verbatim by the students. Grammar supplanted literature, and logic became mere dialectic. Religion often meant little more than catechetical memorization. It was a period in which the spirit of learning was lost in its mechanics, when the forms of life counted more than its spirit. Education reflected all these superficialities.

The Decadence of Humanism. The Renaissance is hailed by historians as a profound humanistic revival. The writings of the Greeks and Romans, who had expressed better than any other secular scholars the aspirations of the human spirit, were rediscovered and read. There was an avid search of these classics for the meaning of life, but culture again fell prey to the pedantries of the schoolmaster. Greek literature was something to be studied, not lived or experienced. Glossaries had to be made and lexicons prepared. Stylistics had to be systematized and constructions analyzed, and so the humanistic learning in the schools became sterile and formal and unrelated to the impulses of the human spirit. Renaissance education became obscured in the putterings of the grammarians.

Erasmus, a great Renaissance humanistic Latin scholar, had warned of the stultifying effects of rote memorization, and had declared, correctly, that the only sound mnemonic art had three rules: understand, arrange, repeat. However, Ciceronianism — the meticulous imitation of models, the concern with style before idea, the substitution of pat verbalism for real understanding — enveloped Renaissance education.

During the medieval and Renaissance periods, Latin was the language of the schools. Luther, in outlining his views on education to civic officials and parents, insisted that the elementary schools use the vernacular, the language close to the lives of the people. He proposed that these schools also should include physical training, music, reading, writing, and religion. Since Luther considered the secondary schools as useful principally for the training of ministers, they were to retain Latin and Greek, but were to include rhetoric, dialectic, history, science, mathematics, music, and gymnastics. It is doubtful, however, whether Luther's conception of secondary education was much less formal than that of the typical secondary schoolmaster. At least his disciples managed to traditionalize the new secondary schools wherever they were established.

Another historical phase of formalism was the obsession of the school with adult standards, adult interests, and adult activities. Although here and there was an incident to the contrary, such as the tempered discipline of the Jesuits, and Quintilian's and Vittorino's recognition of individual differences and the need for a kindlier control, little had been done by the end of the Renaissance about adapting instruction to the needs or interests of children. For that matter, very little had been done to adjust the curriculum to the pupils' levels of insight and ways of learning.

The Realistic Movement. The realistic movement in education was a protest against the decadent humanism of the late Renaissance. Humanistic realism was a reiteration of the necessity of understanding and appreciating the life and times of the ancients by studying classical literature. There was a protest against grammatical mechanism, and an insistence upon understanding the

content of the material, which was to be studied for practical purposes. The aim of education, said Milton, was to fit man "to perform justly, skillfully, and magnanimously all the offices both private and public of peace and of war." To the humanistic realists, however, contemporary affairs were not worth study and interpretation. The true ways of life had been discovered by the ancients, and were as valid for the present as they had been in the past. In spite of its emphasis on meaning, this conception of education is scarcely promising as an escape from formalism.

Sense realism not only emphasized the study of natural phenomena, but stressed the principle that all knowledge comes through the senses. Comenius, one of the greatest of the sense realists, proposed a series of graded textbooks and a series of graded schools leading from a school of infancy through the university. He declared that education should appeal to the child's interests, but thought educational methods could be deduced by analogy from observation of nature, rather than from study of the child. For this reason, Comenius cannot be called a child psychologist, but he outlined the first step in bringing education close to two fundamental realities: the real world in which children and adults live, and the nature of the child and the laws underlying his growth. Firm grounding in these realities is the best protection against the formalisms which always haunt educational institutions.

Modern Formalism. The social realism movement stressed the study of contemporary civilization and culture, and the value of social contact as a means of education. This movement provides the background for the emphasis given of late to the study of social, economic, and political affairs in the schools. Sense realism foreshadowed the expansion of natural sciences in the curriculum. To the classics, science, and social science studies have more recently been added fine and industrial arts and vocational subjects. It is important to point out, however, that the introduction of new studies which should bear a direct relation to contemporary life does not banish the peril of formalism. Its evils still permeate many of the theories and practices of education. Some of the

instances of current formalism in the schools are found in the following conditions:

(1) The confusion of education with schooling. Teachers frequently forget that the growth of the individual is as much — or more — influenced by out-of-school, non-academic activities as by formal education.

(2) The excessive bookishness of modern education. It is easier to study about citizenship than to practice it. Learning is defined too frequently as knowledge, too seldom as ability to do.

(3) The absorption of education with subjects, rather than with functions. Subjects are the creation of scholarly specialists. They are systematic and logical, and ordinarily are encyclopedic formulations of knowledge. They are relatively narrow classifications of experience, most highly prized by the specialists themselves.

There has been an insistent effort in recent years to define education in terms of functions. The Committee on the Cardinal Principles of Secondary Education (set up by the general committee of the National Education Association on the Reorganization of Secondary Education) in 1916 defined the objectives of education in terms of citizenship, worthy home membership, health, ethical character, vocational efficiency, worthy use of leisure time, and command of the fundamental processes.[1] Other formulations, differing slightly, but based on the same educational premises, have been issued. Note that the aims are stated in terms of major realms of human activity, not in terms of subjects. In spite of these preachments, education, particularly on the secondary level, is almost as subject-centered as it has ever been.

(4) The domination of adult interests, standards, and activities without reference to the realities of the child's life and purposes.

(5) The persistence of old subjects and the retention of useless material in the newer subjects of instruction. Latin, once of practical importance as the only language of culture and the means of common communication, long perpetuated its dominance through the forces of tradition and the invention of the theory of mental discipline. This doctrine taught that certain subjects,

Latin particularly, were of paramount value in training the higher mental powers, and that these powers, once trained, would operate successfully in any situation. Furthermore, there persists in nearly all the subjects of the curriculum dead material of no consequence to anybody but the encyclopedic scholars. Schoolmen add, but seldom subtract, when they change the program of studies.

(6) The excessive verbalism and rote memorization which still permeate learning. Pupils pass back to the teacher glibly the language of their texts without any understanding of its meaning. The writer has heard both teacher and pupils spend most of a period mouthing statements which neither understood. This memorizing of rote information and pat generalizations is evidenced by the inability of pupils to apply and illustrate, and to use information in solving new problems.

(7) The persistent practice of avoiding crucial issues. The writer once asked seniors in college to write out questions the answers to which they wanted badly, but with which education had had nothing to do. The result was a revelation. Education has failed to touch some of the deepest needs of human beings.

Courses in history and the social studies have detoured whenever any touchy problems have loomed ahead. The result has been that we have drilled students with information that is relatively unimportant and unrelated. We have not only failed to stimulate pupils to think about ways of social reform; we have not even given them a realistic picture of the present world.

Education has been in perennial danger of these and other formalisms. It is subject to all the traditionalisms and mechanisms of institutional behavior. It is only with constant struggle that learning may be kept vitally concerned with the major areas of human life.

The Central Problem in Education

Doctrine of Innate Depravity. Until relatively recent times, educators have been primarily concerned with the question, What knowledge is of most worth? The materials of education rather than its method have seemed of paramount importance. Although

beginnings of method were made by men like Comenius, who stressed the importance of experience and interest in learning, its development had to wait upon a new attitude toward child nature and a new science of child psychology. The doctrine of original sin, which dominated medievalism and persisted into modern times, is well illustrated in this quotation from one of the early Christian writers:

> No sooner do children begin to act at all, but we discover how universally sin has pervaded all the sources of intelligence; the conscience is enfeebled and oppressed, its voice is stifled, and its actions perverted; the evil passions grow and flourish, while the good are educated with difficulty.

Rousseau and Education as Growth. With his deeply emotionalized reactions against the absolutism of state and church, and his violent antipathy toward the doctrine of innate depravity, Rousseau opened up a new era of democratic strivings and an interpretation of education as the growth of individual personality. Where the medievalists and formalists asserted the inherent degeneracy of human nature, Rousseau posited the innate goodness of original tendencies. The function of education, he said, was to provide an environment in which the natural tendencies of the child could develop unhampered and unfettered by adult demands.

Rousseau emphasized individual differences among children. "Each has his own cast of mind, and in accordance to which he must be directed; and if we would succeed, he must be ruled according to this natural bent and no other." He recognized stages of development in the child's growth, and outlined the characteristic activities which should be given opportunity for expression at each level. "Nature wants the children to be children before they become men." He placed interest rather than effort at the heart of learning activity, and condemned verbalism and formal memorization.

Rousseau declared that education proceeded through direct experience; he stressed activity, including physical movement. "Let him be at work doing something; let him run, shout, be always

in motion; let him be a man in vigor, and he will sooner become one in reason."

This system of education, however, was primarily negative. The first education "consists, not in teaching the principles of virtue or truth, but guarding the heart against vice and the mind against error. Never let the child have anything because he demands it, but because he needs it. . . . A negative education does not give virtue; it saves from vice; it does not inculcate truth, it saves from error. Childhood is the sleep of reason."

Although he stressed education according to nature, Rousseau was in no sense a child psychologist. His conclusions were arrived at through very little actual observation of behavior. The modern psychologist considers original nature as neither right nor wrong, but as an organization of tendencies which need to be guided into useful means of adjustment. Rousseau's view of human nature and his negative theory of education were only two of his many misconceptions. He exerted, nevertheless, a profound influence in the ultimate movement to define education in terms of child growth.

Pestalozzi and Child Guidance. Rousseau was a theorist, not a teacher. His ideas were not gained from experience, and he never tried them in practice. Pestalozzi, one of Rousseau's followers, developed his principles and methods of teaching from actual experiences with children. He tried to rear his own son according to Rousseau's dogmas, and discovered how inadequate many of them were. This led him to experiment with the teaching of children on a farm at Neuhof, Switzerland, and later at an orphanage at Stanz. In the light of these experiences, he formulated his theory of social regeneration through the development of the individual's capacities. He understood that education must be based upon the interests and activities of children. He believed that learning must be founded on an enriched experience, and counteracted the prevalent tendency to verbalism by the development of a system of object teaching, and by proceeding from the concrete to the abstract, from the simple to the complex, from the known to the unknown.

Pestalozzi condemned the harsh method of discipline then in vogue, and taught that the methods of controlling behavior should be based on sympathy and love as expressed in the finest home. He declared that to teach, one must know children. This knowledge was to come through the actual study of child behavior. His was a positive view of education — the development of the natural abilities and aptitudes of the child by wise direction and guidance.

Education through Socialized Experience. Froebel, another teacher of children, had a profound influence on the early years of elementary education as the founder of the kindergarten movement. John Dewey has aptly summarized Froebel's contribution to educational method as follows:

(1) . . . the primary business of school is to train children in cooperative and mutually helpful living; to foster in them the consciousness of mutual interdependence; and to help them practically in making the adjustments that will carry this spirit into overt deeds.

(2) . . . the primary root of all educative activity is in the instinctive, impulsive attitudes and activities of the child, and not in the presentation and application of external material, whether through the ideas of others or through the senses; and that, accordingly, numberless spontaneous activities of children, plays, games, mimic efforts . . . are capable of educational use; nay, are the foundations of educational method.

(3) . . . the individual tendencies and activities are organized and directed through the uses made of them in keeping up the coöperative living already spoken of; taking advantage of them to reproduce on the child's plane the typical doings and occupations of the larger, maturer society into which he is finally to go forth; and that it is through production and creative use that valuable knowledge is secured and clinched.[1]

Dewey and Creative Education. In our own time, Dewey has pointed the view to a disciplined and practical evolution of child-centered education. He described the new school as a place where children learned through living.

[1] John Dewey, *The School and Society*, pp 111–112. University of Chicago Press, 1915.

No number of object-lessons . . . can afford even the shadow of a substitute for acquaintance with the plants and animals of the farm and garden acquired through actual living among them and caring for them. . . . Verbal memory can be trained in committing tasks, a certain discipline of the reasoning powers can be acquired through lessons in science and mathematics; but after all, this is somewhat remote and shadowy compared with the training of attention and of judgment that is acquired in having to do things with a real motive behind and a real outcome ahead.[1]

Again:

The child is to be socialized through an experience in community living. The school "has a chance" to affiliate itself with life, to become the child's habitat, where he learns through directed living, instead of being only a place to learn lessons having an abstract and remote reference to some possible living to be done in the future. It gets a chance to be a miniature community, an embryonic society.[2]

Dewey conceived of education as the process of directing wisely the growth of the child, which depends upon the native tendencies of the organism. He taught that the best preparation for adult life was not absorption with the unreal adult world, but the richest living at every stage of development. So he wrote: ". . . if we identify ourselves with the real instincts and needs of childhood, and ask only after its fullest assertion and growth, the discipline and information and culture of adult life shall all come in their due season." [3] Dewey believed that the educational process should be creative; that discovery and understanding should be emphasized before drill and memorization; that at every moment learning should be purposeful.

The Activity Curriculum. The project method in education was but one of the many procedures supposedly developed out of this new interest in pupil activity. Project teaching purported to give the child an opportunity to purpose, to plan, to execute, and to appraise the results of his activity. It has been said that project activities resemble more closely than logical subject units the conditions under which learning really occurs in life.

[1] *Ibid.*, pp. 8, 9. [2] *Ibid.*, p. 15. [3] *Ibid.*, pp. 54, 55.



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Projects were first used to supplement the more conventional curriculum as means of providing application, creating interest, and utilizing informations and skills. Recently, however, the idea has been applied to the core of the curriculum. Some "progressive educators" have proposed an "activity curriculum" which is really a series of projects substituted for systematic learning of school subjects. This innovation purports to make room for pupil purposing, for creativity, for marginal or concomitant learnings, and for the identification of the school with life.

Freedom in Education. Some of the proponents of the new education have gone still further in their break with tradition. They have proposed to substitute childish interests, purposes, and activities for those which were derived from an analysis of adult needs and functions. Two of the common slogans of this school have been "freedom" and "expression," but under the less thoughtful followers of child-centered education, freedom seems to have become caprice. These people seem to repose a naïve faith in the stability and significance of children's purposes.

Dewey himself has never promulgated a doctrine of capricious freedom or of a curriculum determined by children's whimsies. In criticizing the vagaries of some of the progressive schools, he has pointed out that a child's experience "is not complete in his impulses and emotions; these must reach out into a world of objects and persons. And until an experience has become relatively mature, the impulses do not know what they are reaching out for; they are blind and inchoate. To fail to assure them guidance and direction . . . promotes the formation of habits of immature, undeveloped, and egoistic activity." [1]

Education as Directed Growth. The theories and practices of some of the devotees of the new education have often been superficial, perhaps even dangerous. This movement, however, has never confused education with schooling, with formal discipline, with mere knowledge, or with stereotyped reactions. It has reiterated the basic truth that education is not something done to children,

[1] John Dewey, "How Much Freedom in the New Schools?" *New Republic*, Vol. LXIII (July 9, 1930), pp. 204–206. By permission of the author.

but something done by children. It has emphasized the pupil-centered rather than the subject-centered curriculum, learning rather than instruction, activity instead of passivity, understanding instead of rote memorization. The progressives have wisely defined education as the process of facilitating the growth of the child in its many-sided, but always unified, nature. That this growth proceeds best under wise guidance and direction needs equal recognition.

Method the Ultimate Problem. There is an increasing commitment to the doctrine that method, in its broadest sense, is the ultimate problem in education. The term "method" is not used here to refer to mere devices and procedures in teaching. Method, as an ultimate problem, means that the aim of education is to learn how to learn. Education should culminate in the development of initiative, self-direction and self-control, and self-appraisal leading to self-improvement. These outcomes are those which make continued growth possible. They are the achievements which make education one with democracy, for democracy is fundamentally a way of living, and its lifeblood is growth and progress. These objectives will thwart the inroads of formalism, for growth is dynamic and purposeful, functional at every stage.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. Show how the individual under modern dictatorships has been submerged in the interests of the group.
2. Under what conditions may the greatest development of individuality contribute to the benefit of the state?
3. Why do you suppose the German government found it essential at one time to abolish kindergartens and dissemination of Froebel's doctrine of education?
4. Do you believe that the duty of the school is first to prepare the individual for contribution to the common good, and second, for personal benefit?
5. What is meant by the statement that education is not preparation for life but life itself? How may this statement need qualification?
6. Using illustrations from the history of education, contrast education as "instruction" and as "pupil activity."

7. Report on Ruskin's denunciation of Renaissance educational formalism in his *Stones of Venice.*
8. Give illustrations of the way in which verbalism is often mistaken for real understanding.
9. What historical movements are behind the child-centered school?
10. What changes in school discipline have accompanied changed attitudes toward child nature?
11. Explain what is meant by education as guided and directed growth. What is the function of the teacher in this process? What rôle will children's purposes, activities, and interests play?
12. What educational uses may be made of the principle that effort follows interest?
13. What teachings of Rousseau, Froebel, Dewey, and others suggest an emphasis on life activities in the curriculum?

SELECTED REFERENCES FOR FURTHER READING

Heinrich E. Buchholz, *Fads and Fallacies in Present Day Education.* Macmillan, 1931

John L. Childs, *Education and the Philosophy of Experimentalism.* Appleton-Century, 1934.

John Dewey, *The School and Society.* University of Chicago Press, 1915.

John and Evelyn Dewey, *Schools of Tomorrow.* Dutton, 1920.

William H. Kilpatrick, *Remaking the Curriculum.* Newson, 1936.

Everett D. Martin, *Liberty.* Norton, 1930.

—— *The Conflict of the Individual and the Mass.* Holt, 1932.

John H. Randall, *The Making of the Modern Mind.* Houghton Mifflin, 1926.

James H. Robinson, *The Humanizing of Knowledge.* Doran, 1923.

—— *The Mind in the Making.* Harper, 1921.

Harold Rugg, *American Life and the School Curriculum.* Ginn, 1936.

Bertrand Russell, *Education and the Good Life.* Boni and Liveright, 1926.

Hendrik Van Loon, *Tolerance.* Boni and Liveright, 1925.

Claire T. Zyve, *Willingly to School.* Round Table Press, 1934.

CHAPTER IV

UNDERSTANDING THE COMMUNITY

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School and Community

The increasing emphasis on the importance of relationships between school and community promises to become a major development in American education. When the chief aim of the school was to teach certain specified subject matter, the relations between school and community were less important than they have become since the aim in teaching has been shifted from subject matter to serving the child's needs. It is impossible to serve the needs of the individual child without understanding those needs, and it is impossible to understand the child without understanding his environment. The immediate community in which the child lives usually constitutes his chief environment, physical and social. The modern teacher needs to study the educational implications of this community environment just as he needs to study the child's physical and psychological characteristics. An understanding of the individual community is as important as an understanding of the individual child. This twofold problem of education in a democracy has focused attention upon the necessity for developing and maintaining closer and more effective relationships between school and community.

Thorough knowledge of a community includes two phases: (1) a knowledge of the community itself, its structure, activities, and general make-up; and (2) a knowledge of its relation to other local communities, the state, the nation, and the world. This chapter discusses the educational implications of community life in terms

of the local community and its activities. It deals with the historical development of school-community relations, the factors which together make up a community, and the problems of coördinating the educational phases of community life. It is primarily concerned with rural communities, which include the open country and all towns and villages with fewer than 2,500 population. Rural communities are particularly suited to this discussion since they contain over half the children of the United States of school age and provide the clearest illustrations of the problems involved in understanding community relationships.

Historical Background. During colonial days the school and community were closely related. The school was small and informal. The teacher "boarded around," living with different families and becoming intimately acquainted with them. Parents and patrons thus had ready access to the school. The teacher was an integral part of community life; he observed its currents at close range and participated in its activities. Even the select Latin grammar school, which represented the high school level, was organized out of the needs and desires of the small group who were preparing for college and the professions, and was in close contact with this group and its demands. This close relationship in which the school grew out of the demands of the community and was responsive to them was a part of the American tradition. It was an attempt to put into effect the democratic principles on which the nation was founded.

As the population swept westward from the Atlantic seaboard, across the Appalachian Mountains, and dotted the prairies and plains with communities, schools continued to spring up out of the life of each new community. These schools were not organized and controlled by a benevolent Federal or state government, but depended on each local community for control and support. When a new community was organized, a group of parents and citizens met and decided to organize a school and levy a tax for its support. A building was constructed, often by volunteer labor, and a teacher employed. Again the teacher was in close contact with community life and sensitive to its wishes. Teachers had meager training and

were employed more because of general ability and community contacts than for their professional knowledge of education. During pioneer days the school trustees often knew as much about education as the teacher, and often took an active part in directing the teaching process. Within comparatively recent years one state has continued regulations that the trustees must visit the school once a month to check or test the pupils in reading, writing, arithmetic, and spelling. This close supervision indicates something of the close relationship between school and community life during the pioneer period. The struggle of the school to perform its task was a part of the struggle of the whole community to build a new and satisfactory society in what had so recently been a wilderness.

However, as the nation grew older and education began to take on more definite form, school and community relationships were slowly weakened. The school gradually built up its own program, expanding and standardizing its curriculum. With the increased professional training of teachers, the teacher became a specialist and trustees were no longer capable of supervising the teaching process. Professionally trained supervisors and administrators were employed, not because of their knowledge of the community and general acceptability to it, but because of their professional knowledge of education. The school tended to become an institution apart from the community.

At the same time the communities themselves were growing up and maturing. Other institutions, including churches, lodges, and farm organizations, were being established and the community was becoming more complex. With the advent of improved transportation, communication, and agricultural machinery, the functions and even the forms of the community changed. These developments brought changes in the educational needs to which the school was reluctant to adjust itself.

With the school following its own path and becoming more and more an institution within itself, while the community was being modified and shaped by other forces, the two gradually grew apart. Many of the old school-community ties became weakened or even

completely severed. Few new ties were developed in terms of the new situation. The school too often gave only a certain formal training, with little regard to the importance of adapting its program to the needs of the local community.

As this situation developed, the need for building new relationships between school and community became more apparent. Larger enrollments compelled a broadening of the curriculum to meet a wider variety of pupil needs, and also necessitated greater financial support. Both a broader curriculum and increased financial support depended upon closer school-community relations. There was a movement to "educate the public" to the importance of the public school, and to "sell the school to the community." School entertainments, musical programs, dramatics, and high school athletics were often exploited to this end. In some cases extracurricular activities were organized to lure pupils into the school and relieve the tedium of studying dull and uninspiring subjects. At the same time the field of "school publicity" was studied, and methods of conducting "campaigns" to "put over" bond issues and construct buildings were devised. This movement reached its height in the period following the World War.

With the advent of the depression the weakness of so-called publicity drives became apparent. They usually failed to realize that the public school system was an outgrowth of community life itself, not something to be "sold" to it, and that school-community relations are of a very fundamental nature. When the nation was facing a period of retrenchment in all lines, pressure on the schools became great. The communities began to retrench first in those lines where something had been "sold" to them, and retained longest those services for which they themselves had struggled, and to which they had contributed. This situation has had an important influence on education in developing a more fundamental concept of school-community relationships.

Today the school is conceived as an integral part of community life. The function of the school is to make explicit the educational values implicit in community activities. Its duty is to understand and develop these educational values. Briggs had proposed as a

Golden Rule for Education that "The first duty of the school is to teach the pupils to do better the desirable things that they are likely to do anyway."[1] This implies an understanding of the pupil and the community in which he lives. Only when the community agencies and the forces which are shaping and reshaping their programs are understood, can the curriculum be constructed out of their activities. Methods of constructing the public school curriculum out of the life of the community are presented in a later chapter. Before considering these methods, however, it is necessary to have a clear understanding of the community itself.

What Is a Community?

We have all seen an airplane view of some community, showing a group of buildings clustered together or lined up along two sides of a main street. Perhaps it was a New England village from the center of which rose a white church spire. It may have been a town nestling in a Southern mountain valley. If it was on the prairies or plains, it may have been centered around the square with the business district forming the core and dwelling houses the outer rim of the group. Perhaps an impressive school building stood near one edge of the group. Surrounding the cluster of buildings was open country, the landscape dotted here and there with farm buildings. Such groups of buildings, with the surrounding farms, represent communities; but a community is more than merely buildings.

Community Agencies. Most of the buildings in a community are dwelling houses, sheltering the most important institution of all, the family. In the center of the community are the business blocks, in which are found the business or economic institutions, the stores, bank, garage, and moving picture theater. There may be a farmers' coöperative milk-plant, a grain elevator, or a cotton gin, depending on the region. Certain governmental agencies are housed in this area: the post office, the courthouse, or perhaps a

[1] Thomas H. Briggs, *Secondary Education*, p. 258. By permission of The Macmillan Company, publishers.

town hall. The various social agencies are housed throughout the community. The school building occupies a prominent place. Several churches and a lodge or Grange hall are usually found. Occasionally there is a community center or a public library building. These agencies or institutions are the supporting structure upon which community life is built.

Through the business institutions flows the economic life of the community. Without them it would be impossible to secure the necessities of life basic to existence. The stores and garages serve consumers; the bank supplies credit, the movies recreation; the farmers' coöperative provides an avenue through which the chief agricultural products can be marketed. Sale of these products probably provides the chief source of income on which the community depends.

Governmental agencies include the Federal post office, the local village government, and the county government. The county government is usually responsible for such services as keeping records, maintaining the peace, building highways, and providing the agricultural and home demonstration extension service, the public health service, and the county library.

The social agencies include the churches with their Sunday schools, young people's organizations, ladies' aid societies, and men's clubs; the school with its educational program, which may extend from kindergarten to adult education; the public library; the farm organizations such as the Grange, the Farm Bureau, and the Farmer's Union; the lodges, service clubs, women's clubs, 4-H Clubs, Boy Scouts, Campfire Girls, and a variety of informal organizations, such as card clubs. In addition to their regular functions the post office, business houses, churches, schools, and library also provide the means by which many informal meetings between individuals take place. Acquaintances are made and human relationships developed through chance meetings and conversations between customers, pupils, church members, lodge members, or patrons of the public library.

This brings us to the heart of the community. In the last analysis the buildings, the institutions, and the activities of the

community are but means by which desired human relationships can be developed. A community, then, is a group of people who, through common interests and living together, have developed a large number of human relationships with each other. There have been many definitions of the community as found in rural areas. Some emphasize its area, some its structure, and others the people. One of the most satisfactory definitions, from the teacher's point of view, was formulated by Sanderson as follows:

> A rural community consists of the social interaction of the people and their institutions in the local area in which they live on dispersed farmsteads and in a hamlet or village which forms the center of their common activities.[1]

Determining Community Boundaries. One of the first problems in understanding a community is to discover the area which it covers. In other words, how far from the center does the homogeneous group which constitutes a natural community extend in each direction? This problem has received wide attention in recent years because of the widespread shifts in community boundaries. Modern highways and automobiles have permitted people to congregate more frequently and from greater distances. New community activities have sprung up and old ones have either become more vital or disappeared from the scene. Many surveys have been made to determine the area in which people went to a common center to carry on their chief activities, such as trading and attending meetings. In these surveys, maps are made showing the trade areas from which come the patrons of banks, general stores, filling stations, movies, farmers' elevators, and other business institutions. Then similar maps are made to show the location of school pupils and of members of churches, lodges, farm organizations, and other social agencies. From the different maps superimposed on each other a community boundary line is drawn, to include the majority of the people who most often use the center of the community to serve the majority of their needs.

The fact that the area from which the high school draws its

[1] E. Dwight Sanderson, *The Rural Community*, p. 481. Ginn, 1932.

pupils is considered by some sociologists the most important area in the determination of a natural community is of particular significance to teachers. Kolb and Brunner state:

It is apparent that with the passage of time, trade, marketing, and merchandising became less important in determining community boundaries and often contributed less to group strength or solidarity. Such economic contacts or enterprises are less personal than formerly; there is more trading or "shopping around." Social contacts and activities seem to assume greater importance as judged by such indexes as proportions of country memberships in different kinds of social and fraternal organizations and the numbers of joint town-country enterprises and activities.

The increased importance of social relationships is found particularly in the educational field From every region and by every method of study came the report that the school, more especially the high school, was the most important and decisive single factor in determining town and country community solidarity or in defining community areas. . . . As time goes on, the number as well as the proportions of farm and village youth mingling in and graduating from high schools will be sure to increase.[1]

Factors Affecting Community Life

Population Shifts. There are definite forces which are playing upon and reshaping the structure and activities of communities in rural areas. Important changes have been taking place in American life due to the migration of our population from country to city. This great migration is comparable to the westward migration from the eastern seaboard over the Appalachian Mountains and across the continent toward the Pacific. In 1880, 71 per cent of our population was rural and only 29 per cent urban. Ten years later, the rural population had been reduced to 65 per cent, with a corresponding urban increase. By 1900 the proportion was 60 per cent rural and 40 per cent urban. In 1910 the rural population had dropped to 54 per cent and the urban had increased to 46 per cent. The majority was still rural, however.

[1] John H Kolb and Edmund deS Brunner, *A Study of Rural Society*, p. 131. Houghton Mifflin, 1935.

During the next decade the cityward trend continued until the line was crossed, and with 49 per cent rural and 51 per cent urban, the rural population no longer constituted a majority. During the 1920's this trend was accelerated, and the rural population dropped to 44 per cent while the urban increased to 56 per cent.

This movement between 1880 and 1920 was due to the migration of population from farm to city, and to the increase in our total population. The population of the United States grew from 50 million in 1880 to 123 million in 1930. Although the rural population increased from 36 to 54 million during that period, the urban population increased from 14 to 69 million, a much more rapid rate.

The shift of population from country to city was characteristic of the entire United States. In forty-two of the forty-eight states the proportion of city population was larger in 1930 than in 1920; in only six had there been a relative increase in rural population. However, it should be noted that twenty-seven, or more than half the states, continued to have a rural population larger than their urban. This is because the urban population has tended to concentrate in a few large industrial centers.

This great cityward migration might suggest that eventually rural communities will disappear, and with them the need for public schools in rural areas. A careful study of recent trends shows that this is not likely to be the case. Although during the 1920's the annual migration between city and country sometimes included over $3\frac{1}{2}$ million persons, and on the average over 629,000 more moved annually from country to city than from city to country, there was a change beginning in 1930. During the three years of deepest depression the net movement was from city to country. While this was reversed again by 1933, it seems now that the urbanward movement has definitely slowed down and that a large part of our population will continue to reside in rural areas. This is further verified by the fact that while the total rural population has decreased, since 1920 there has been an increase in village population. It seems safe to assume that the rural community is a permanent part of American civilization.

Future Trends. To understand any community it is necessary to know whether its population is growing, decreasing, or remaining static. It is likewise important to know what the future trend is most likely to be. This information is needed in planning school buildings, determining the size of the teaching staff, constructing the curriculum, and providing a guidance program.

Future population may be predicted by comparing the total population of the community or county over a period of years as shown by the Federal census of the United States taken every ten years, but a more thorough method for school purposes is to use the school census taken annually or biennially. The trend may be studied by the percentage of increase over ten-year periods. The local trend should then be compared with national, state, and county trends.

Past trends of population alone may not indicate future trends; they must be studied in connection with other factors What are the trends in assessed valuation of property? Are the natural resources of a permanent nature? If it is a mining community, how long will the mines last? If a farming community, how rapidly is soil erosion depleting soil fertility? Is some scientific invention likely to destroy the value of the chief resource? What new resources may be developed? Is the extension of electrical power lines likely to bring new decentralized industries? Will new highways pass through the community, or pass by on the other side? These are all problems which must be considered to understand what the future of the community may be. Data on assessed valuation of property may usually be obtained from the state tax report. Information about types of soil can be secured from soil surveys of the United States Department of Agriculture and the state agricultural college. The Natural Resources Board, Washington, D.C., is accumulating valuable data on natural resources. Information on the extension of electrical power may be obtained for some localities from the Resettlement Administration, Washington, D.C. Data on present and projected highways may be obtained from the state highway department. Other sources of information may be the state historical society, the

state museum, the state library, or a *Blue Book* published by the state.

Age Distribution. The population of the United States is becoming older. The proportion of adults is increasing. This means changes in attitudes. The attitudes of youth tend to give way to the attitudes of age. Desire for security tends to displace the audacity of youth. According to Kolb and Brunner the proportion of children to total population is nearly twice as high in the farm population as in the large cities.[1] According to Dawson:

> The average farm adult has 70 per cent more children to rear and educate than the average urban adult, and taking the whole rural population the number of children per adult is 50 per cent greater than for the urban population. The rural areas have, during every decade of our national history, produced a large surplus of population. In 1930, farm families were producing about 50 per cent more children than were required to replace the farm population removed by death. On the other hand, our cities with a population of from 2500 to 100,000 were falling short 8 to 10 per cent of the number of children necessary to maintain their own population; in the large cities the deficit was nearly 20 per cent.[2]

Responsibility for future maintenance of the population of the United States will depend heavily on the rural areas, because the larger cities are failing to maintain their population without immigration.

Public schools in county and village must train not only the future rural population of the United States but also a large proportion of the urban population. This means a breadth of curriculum which will meet the needs of both groups, a guidance program which will show the vocational possibilities of both country and city, and a state-wide program for financing education.

With most of the migrants from farm to city from fifteen to twenty-five years of age, the farm is raising and paying for the cost of children who, as soon as they are able to produce wealth,

[1] Kolb and Brunner, *op. cit*, p. 236.

[2] Howard A Dawson, "Rural Life and Education," *Journal of the National Education Association*, Vol. XXV (May, 1936), p. 155.

go to the city to live. Brunner estimates that "the cities probably bore less than half the cost of educating, providing medical service, and feeding and clothing the young men and women who went to work in their commerce and industries between 1920 and 1930."[1] Baker estimated that during this period the rural population contributed to the city for education, medical service, food and clothing of its future population $1,400,000,000 a year.[2] This factor is often overlooked in studying the forces which are affecting the life of rural America.

Importance of These Factors for the School. The public school should know the total population of the community, the relative proportion of farm and non-farm groups, the relative proportions in the different age groups, including the pre-school, school, and adult population, the proportions of different races and nationalities, and the chief occupations followed. Too often these factors are overlooked in planning an educational program. Frequently, a school erects its buildings, plans its program, and even attempts to strengthen its community relationships without much regard for the situation it purports to serve On the plains, with great open spaces and high winds, are erected three-story school buildings with only three or four rooms on a floor; or in small high schools many partitions are built to create a large number of small cramped rooms for specific purposes, when fewer and larger general purpose rooms are needed. Courses are taught in much the same way from Maine to California, with little thought to the problems of the individual communities which are due to climate, natural resources, occupations, customs, and racial background.

Studying the Community

Defining the Purpose The way in which the study of a community is made will depend primarily on the purpose to be served. It is therefore necessary first to define clearly the purpose of a survey. If the purpose is to relate a particular course or unit of

[1] Kolb and Brunner, *op cit.*, p. 223.
[2] *Ibid.* See quotation, p. 223.

study to the lives of the pupils, certain information is needed. For example, the teaching of health will be quite different in a community where the chief health problem is defective teeth than where it is hookworm. This type of survey will be discussed in the following chapter. If the purpose is to plan a new school building, data will be needed on the number of children in different grades, both in average daily attendance and in the total school census, the probable future enrollment, the educational needs of the pupils, their interests, abilities, and possible future occupations, the wealth of the district as shown by assessed valuation, and the amount the district can afford to pay for a building. If the purpose is to reorganize school districts to fit the modern community, and to provide the modern type of education demanded, another set of facts is needed.

When the purpose of the survey has been formulated, the data to be obtained must be rigidly limited to information which will serve this purpose. Many otherwise good surveys are handicapped by the collection of a mass of information which is never used.

A Type Survey: Reorganization of School Districts. What conditions make a reorganization of school districts necessary? Present school districts were laid out to fit the boundaries of communities during pioneer days, when travel was slow and arduous and when individual farms and villages were largely self-sufficient and self-contained. With the coming of modern transportation and communication, of factory-made goods and agricultural machinery, of modern conveniences in the home, and the breakdown of the barrier between village and farm, communities outgrew their old boundaries and became larger and more inclusive. Interest widened and community activities became broader and more complex. Wealth shifted from general property to stocks, bonds, and other forms of less tangible wealth. A study of the history of the district will throw light on the extent to which the community has felt the impact of these changes. The historical background of the community is therefore important to the survey.

Furthermore, before the survey of the school system, as such, can be effective, many facts about the present-day community

must be known. What are its boundaries? What type of population does it contain? What institutions and agencies are contributing to the educational program? What economic resources does it have? What forces for change are operating? All these questions have an important bearing on the reorganization of school districts to provide more effectively the educational program desired. Some of this information can be obtained from the sources already mentioned. In addition, school records, minutes of school board meetings, church records, newspaper files, old programs and other publications on file in the local newspaper office, and reports of local governmental officials may provide needed data. Interviews with community leaders will supply material not available elsewhere.

The following types of specialized data are needed in reorganizing the school districts of a county: the total population and the school population by districts over a period of years to show trends; the trends in assessed valuation over a period of years; the highways of different types available for transporting pupils; the size of the school according to the number of teachers and pupils; the length of the school term; the grade distribution of the pupils; the tax levy for school support; the assessed valuation per pupil; and the cost per pupil. Since reorganization often means a building program, there is also need for a study of the capacities, types, and construction of buildings.

Coördinating Community Activities

One of the most important needs in the development of wholesome community life is a closer coördination of all community agencies. While the average community has many organizations, these usually fail to serve the total population. Too often they provide a multiplicity of activities for a relatively small group, while a large number of people engage in few or none. Since the school is the chief educational institution, it has a responsibility for assuming leadership in bringing community leaders together to study their common problems.

The Family. Since the family is the basic institution in American society and since its functions are changing so rapidly today, it should be one of the first to be studied by the school as a basis for curriculum development. The family is relatively more important in rural communities than in urban. In its simplest form it consists of father, mother, and children living together under one roof. There may also be other relatives or boarders. It has changed its functions since pioneer days when it was relatively isolated and self-contained Then much of the work now carried on by factories was a part of the function of the home. Many of the social activities, including education, recreation, and even religion, were also provided by the home. Today the influence of the family on growing youth is definitely being supplemented by the activities of other institutions. The factory, bakery, school, hospital, community center, mortuary, and even the church perform functions formerly centered in the home. The use of modern agricultural machinery has transferred much of the former drudgery of farm life to the factory. Furthermore, the introduction of modern household conveniences such as electricity, the power washing machine, running water, refrigeration, has not only relieved the family of much of its former drudgery but has actually decreased the number needed to perform the necessary household work. In short, consumption has largely displaced production as the function of the home.

The size of the family is decreasing; the functions of the family are changing; the strength of the family as shown by relative marriage and divorce rates is declining. Opposed to these trends are the increase since 1920 in the number of family-size farms and the greater attention being given to the building and care of homes. There has also been a swing back to self-maintenance in the farm family. Likewise, more attention is being devoted to the development of family relationships. Broken homes are found twice as frequently in the city as in the country.

The school, in its study of the family in its community, needs to know the changes in the size and type of family, the extent to which it is performing its functions effectively, and the standard of living

in the home. What type of dwelling house is used? What types of rooms are usually found? What use is made of modern conveniences? What types of furnishings are provided? What attempts are made at beautification of the home? What proportion of the family income is spent for food, clothing, furnishings, fuel and light, and other services? How is the food selected, prepared, and served? What is the education of the parents? The types of homes found in a community will have an important bearing on its educational needs.

An example of a school studying the houses of the community is found at Whitmell, Virginia.[1] The Home Economics Club raised the question of how much the farmers of the community could afford to invest in their homes. In coöperation with the sociology class a survey of the homes was made. The interest of the community was aroused, and the results of the survey were presented dramatically at Commencement time. The average distance of homes from church, business, and school were shown. The average working hours of farm women, their home conveniences, and their means of cultural enjoyment were depicted. Improvements were suggested, such as the use of electricity and running water in the home. A miniature farm house, practical in the community and within the range of cost which the survey showed could be afforded, was built by the agriculture department. The plan and cost of the home and the ways in which the curriculum had been centered around its problems were dramatically reported.

The Public Library. The public library is another educational institution of the community which the school should understand thoroughly. Local public libraries are supported by cities, boroughs, towns, villages, and counties. In some communities the school library serves the whole community, and adults use it freely as a public library. In one New York central school, the public library is housed in the school building but in a room separate from the school library and with an outside entrance.

[1] See Mrs F. C. Beverley, "Commencement Activities of the Whitmell Farm Life School," Ch XIV of *Economical Enrichment of the Small Secondary School Curriculum*, National Education Association, 1934.

In addition, forty-five states have set up library agencies for providing books on a state-wide basis.

Since books are a major resource of the school, and opportunities for wide reading are important to a broad training, it is essential that school and library activities be coördinated. This will be accomplished through an understanding of the activities of each group. Teachers should know the books and other materials available for different grade levels, and in different subject fields, which will be useful for voluntary reading on the part of pupils. They will need to know the librarian and her method of carrying on the work of the library, the hours it is open, its rules and regulations, the types of people it serves, the ways in which it fosters good reading habits, and the ways in which pupils may be encouraged to use the library during vacations and after leaving school. One of the chief functions of the school in teaching reading habits which will continue throughout life should be development of the library habit in its pupils.

If a complete study of a community is being made, it will be necessary to examine the work of the library more thoroughly than has been indicated. There should be a study of the "reading interests" of both children and adults, to discover the types of publications which will serve the largest number — a study of the types of books available in the library and elsewhere; the funds appropriated for library purposes and their use; the methods by which books and magazines are made available; and the use of the library in supplementing the work of the school, church, women's club, agricultural extension service, and other agencies in the community.

Unfortunately, many smaller communities do not have library service. Out of 3,065 communities in the United States, 1,135 had no public library within their borders in 1926.[1] This problem is being attacked through the increased provisions of public library services in the school and through the organization of county libraries which serve all the communities within the county. In

[1] Benson Y. Landis and John D. Willard, *Rural Adult Education*, p. 33. Macmillan, 1933.

the decade 1920–30, county public libraries increased from 99 to 225.[1] The first provision for such service was made by Indiana in 1816. The first modern county libraries were established in 1898 in Van Wert County, Ohio, and Washington County, Maryland. Washington County, Maryland, was the first to operate a book-wagon. Now the use of the book-truck has become an important part of county library equipment. The book-truck carries a fresh supply of books regularly from the central library to its branches and returns the used books to be loaned elsewhere. Branches may be in village libraries, village schools, one-teacher schools, stores, filling stations, banks, barber shops, or even homes. These book-trucks operate on the assumption that books must be placed where they are readily available to users, not kept at a central point where patrons must go some distance to be served. This assumption is borne out by practice in large cities where many patronize a library just around the corner, which charges a rental fee, rather than walk several blocks to a public library where books are free.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. What change of emphasis in educational philosophy has increased the importance of community relationships to the school?
2. What sort of school-community relationships were found in pioneer America? List changes in the school and in the community which modified these early relationships
3. Why is the attitude of some schools that they must "sell" themselves to the community not only inconsistent with the real situation but fundamentally unsound?
4. List all the business houses and social institutions and organizations in a community you know.
5. How can community boundaries be determined?
6. Examine the last Federal census report and list the kinds of data you can secure on population, occupations, and agriculture for your state and county.
7. As a teacher, what would you need to know about the local public library and its services? The county library? The state library?

[1] *Ibid.*, p 33.

8. How will the fact that the population of the United States is becoming older change the future educational program of the public schools?
9. Outline the information you would need, in a community you know, in order to focus the work of the different educational agencies on the provision of a better recreational program for youth.
10. What are the health problems in your community? What agencies are now meeting them? What problems need more attention? How should they be met?
11. Through the Federal census, trace the population of your county and town over a period of forty years. What changes do you find in total population, in the proportion over twenty-one years of age, in school enrollments, and in racial groups represented?
12. Outline a plan for coördinating the community agencies to solve some important problem in a community you know.

SELECTED REFERENCES FOR FURTHER READING

John C. Almack and James F. Bursch, *The Administration of Consolidated and Village Schools*, Ch. XVIII. Houghton Mifflin, 1925.

American Country Life Conference (1930), *Standards of Living*. University of Chicago Press, 1931.

Bird T. Baldwin, *Farm Children*. Appleton-Century, 1930.

Paul E. Belting, *The Community and Its High School*. Heath, 1923.

Orville G. Brim, "Guiding Principles in Rural Education," Ch. XI of National Society for the Study of Education, Thirtieth Yearbook (1931), Part I: *The Status of Rural Education*.

Edmund deS. Brunner, "Planning Education for a Community," *Junior-Senior High School Clearing House*, Vol. IX (March, 1935), pp. 398–399.

—— *Surveying Your Community*. Doran, 1925.

Julian E. Butterworth, *The Parent-Teacher Association and Its Work*. Macmillan, 1928.

Mabel Carney, "Community Relations," *Rural School Survey of New York State*, Cornell University, 1922

"Community Conflict — A Formulation of Case Studies in Community Conflict," *The Inquiry*, New York, 1929.

Whitney Coombs, *Taxation of Farm Property* United States Department of Agriculture, Technical Bulletin No. 172, February, 1930.

Philip W. L. Cox and R. Emerson Langfitt, *High School Administration and Supervision*, Chs. XXX–XXXI. American Book Company, 1934.

H. Paul Douglass, *The Little Town*. Macmillan, 1927.

Wilbur I. Gooch and Franklin J. Keller, "Breathitt County in the Southern Appalachians· Vocational Guidance in a Social Setting," *Occupations*, Vol. XIV, Sec. II (June, 1936), pp. 1011–1109.

Wilbur I. Gooch and Leonard M. Miller, "Vocational Guidance in Rockland County," *Occupations*, Vol. XIV, Sec I (May, 1936), pp. 836–911.

Ralph V. Hunkins, *The Superintendent at Work in Smaller Schools*, Chs VIII–X. Heath, 1931.

Junior-Senior High School Clearing House, Vol. IX, No. 7 (March, 1935) — an issue on "School and Community."

John H. Kolb and Edmund deS. Brunner, *A Study of Rural Society*. Houghton Mifflin, 1935.

Benson Y. Landis and John D. Willard, *Rural Adult Education*. Macmillan, 1933.

R Emerson Langfitt, Frank W Cyr, and N. William Newsom, *The Small High School at Work*, Chs. I, XVII-XVIII. American Book Company, 1936.

National Education Association, Department of Elementary School Principals, Eleventh Yearbook (1932): *The Principal and His Community*.

National Society for the Study of Education, Tenth Yearbook (1911), Part II: *The Rural School as a Community Center*.

—— Thirtieth Yearbook (1931), Part I: *The Status of Rural Education*.

Jesse H. Newlon, "Public Opinion and Education," Ch. IX of National Education Association, Department of Superintendence, Thirteenth Yearbook (1935): *Social Change and Education*.

William W. Norton, "Community-School and School-Community in Music," *Junior-Senior High School Clearing House*, Vol. IX (March, 1935), pp. 414–416.

Royce S. Pitkin, "What Can the Small High School Do toward Building the New Society?" *High School Journal*, Vol. XVIII (April, 1935), pp. 115–122.

Rural Standards of Living. United States Department of Agriculture, Miscellaneous Publication No. 116, July, 1931.

William H. Stacy, *Integration of Adult Education*. Contributions to

Education, No. 646, Teachers College, Columbia University, Bureau of Publications, 1935.

Alfred C. True, *A History of Agricultural Extension Work in the United States, 1785–1923*. United States Department of Agriculture, Miscellaneous Publication No. 15, October, 1928.

Harry A. Wann, "Social Planning in a Community," *Journal of Educational Sociology*, Vol. IX (April, 1936), pp. 494–508.

CHAPTER V

THE SCHOOL IN THE COMMUNITY

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The Educational Program and Community Life

A sound educational program developed in terms of community life requires more than merely an understanding of the community by the school. There must be a definite modification and development of this program in terms of such an understanding.

Selection of Activities. This program may lead the school outside the field of education unless some distinction is made between the elements of community life which are educational and those which are not. Breaking away from the traditional view that a list of subjects offered in regular classes is the total educational responsibility of the school must not lead to the error that everything done by the community is sufficiently educational to receive the attention of youth. If the school attempts to inform every child with regard to all the intricate activities of community life, the result will be a superficial knowledge of many things, without a thorough knowledge of any. This danger can be avoided by constant vigilance in selecting for study only those activities which promise the greatest educational returns. With some types of educational activities, pupils should merely observe the manner in which they are carried on; others, they should actually perform.

Another important distinction concerns the amount of time and energy which should be devoted to a given activity by the pupils. In one school the shop classes built a garage. Each boy participated in each phase of the work, drawing plans, building forms for the foundation, pouring concrete, nailing studding, laying

shingles, and the like, until he had acquired a degree of skill and knowledge; then the owner of the garage employed a workman to complete the job. This gave each boy opportunity, in the time allotted him, to enjoy experiences in all phases of the work. Had each boy been required to work until each particular phase of the job was completed, he would have spent a large part of his school time on limited kinds of routine and would have been unable to acquire a skill and knowledge of all phases of the work.

Another pertinent distinction has reference to educational activities which should be the common experience of all children and those which are important only to individuals or small groups. In the first category are activities involving the exercise of citizenship, such as voting, and activities of importance to all, such as acquiring health habits. In the second category are the activities adapted to special interests, abilities, and needs. A large part of this second group will be in the field of vocational interests and hobbies. An illustration is found in general science when taught from the activity approach. In studying electricity, each pupil follows his own particular interest intensively, whether it be repairing an electric iron, wiring a doorbell in series, tracing magnetic lines of force with iron filings, or studying the life of a great inventor. At the end of the period of individual experimentation, he demonstrates his work to the class. By this method each individual first does thoroughly something in which he is particularly interested; then the whole group has an opportunity to observe a wide variety of activities.

In actual practice the lines which the school draws in determining what comes within its particular jurisdiction will compass a smaller area than what legitimately may be called education. In other words, it can provide only a part of the educational activities of the community. Other agencies, such as the family, church, library, movies, agricultural extension service, Boy Scouts, and the like, carry on important educational activities. Practically, the school must be an opportunist, filling in gaps which the other agencies fail to reach, and providing services which would otherwise be neglected. In one community, its duty may be to carry

on an extensive recreational program outside of school hours. In another community, this need may be met by the Boy Scouts, Campfire Girls, or 4-H Clubs. In many smaller communities without a motion picture theater, the school is performing a legitimate and valuable function in providing regular motion picture shows.

Two Approaches to School-Community Relations

The pressure on the schools to take over functions formerly performed by other institutions, and the newer philosophy that reorients the school in the community, require attention to the problem of how the school should readjust itself. There are two approaches to the problem of school-community relations. One is that of making the school the community center and constantly drawing more and more activities into the school. This means constantly taking over more of the functions of other institutions. For example, lengthening the time the child is in school by the establishment of kindergartens and nursery schools means that the school assumes responsibilities at one time belonging only to the home. The demand in recent years for character education in the school means that the school performs functions previously belonging to the church. The development of the extracurricular activity program means that still further responsibility is placed upon the school. In addition, the increasing use of the school building has tended to center the social activities of the community more and more in the school. These trends have all been in the direction of a *school-centered community.*

The second approach to the development of school-community relationships, which is rapidly gaining headway, is in the opposite direction. It is that of taking the school out into the community; of considering the school as a means of strengthening other institutions and agencies in the community. For example, instead of adding kindergartens and nursery schools which perform some of the functions of the home, classes in parent education will be organized to aid parents in solving their own problems. Instead of taking over the functions of the church, the school will supple-

ment its work and aid it in training intelligent leadership. Instead of attempting to provide a complete recreational program itself, the school will encourage the various agencies in the community to carry on a more complete and wholesome program which reaches a greater number. This trend is toward a *community-centered school.*

Although these two approaches lead in different directions, neither taken alone will produce the most effective community life; both have their place. Returning to the training of the preschool child, probably neither the kindergarten nor the parent-education class will meet the problem; but if the two are combined in a way which makes the kindergarten primarily a demonstration of child training, and the parent-education class a group for studying the problems of child training in terms of this laboratory, great progress will be made.

Coördination of School and Community Activities

There are two methods the school must follow to coordinate its program effectively with community activities and receive the attention and support of the patrons: first and most fundamental, it must have a good educational program based on community needs; and second, it must keep the community informed as to its program.

The school must do its work well to retain public interest and support. Whenever the board of education employs a strong teacher, or a teacher teaches a good lesson, or the pupils' real needs are being met, the schools receive the best possible publicity - a type of publicity for which there is no substitute. The school which devotes its efforts primarily to improvement of the quality of its offering is, in the long run, inevitably in a stronger position than one which places overemphasis on informing the public. Ideally these two aspects go hand in hand. In the most effective educational program the activities of the community agencies, such as the home, church, courthouse, post office, store, gasoline station, railroad, farmers' coöperative, and farm are the material from

which the curriculum is developed. In this situation the public is working hand in hand with the school and automatically is informed as to its work. Informing the public is indigeneous to the program itself. However, since most public schools have not reached the point where the public is automatically informed regarding the educational program because of its participation in it, there is need for some special means of doing this. We need, therefore, to examine some of the avenues through which the school may inform the public.

The most important avenue is through the children. With school children living in a large percentage of the homes of the community, this is a direct contact between school and community. If the curriculum is set up in terms of real life problems, if the extra-curricular activities are meeting social and group needs, if the teachers are providing effective stimulation and guidance, this success will find its way into the home The school is usually one of the chief topics of conversation at the average breakfast table, and the welfare of the school will depend largely on the tenor of this conversation.

The teachers constitute another important avenue of contact between school and community. Not only in their associations with the pupils, but in their associations with adults as well, they have an important part in school-community relations. From its contacts with teachers in organizations and in community activities outside of school, the public forms its ideas of the type of school in the community.

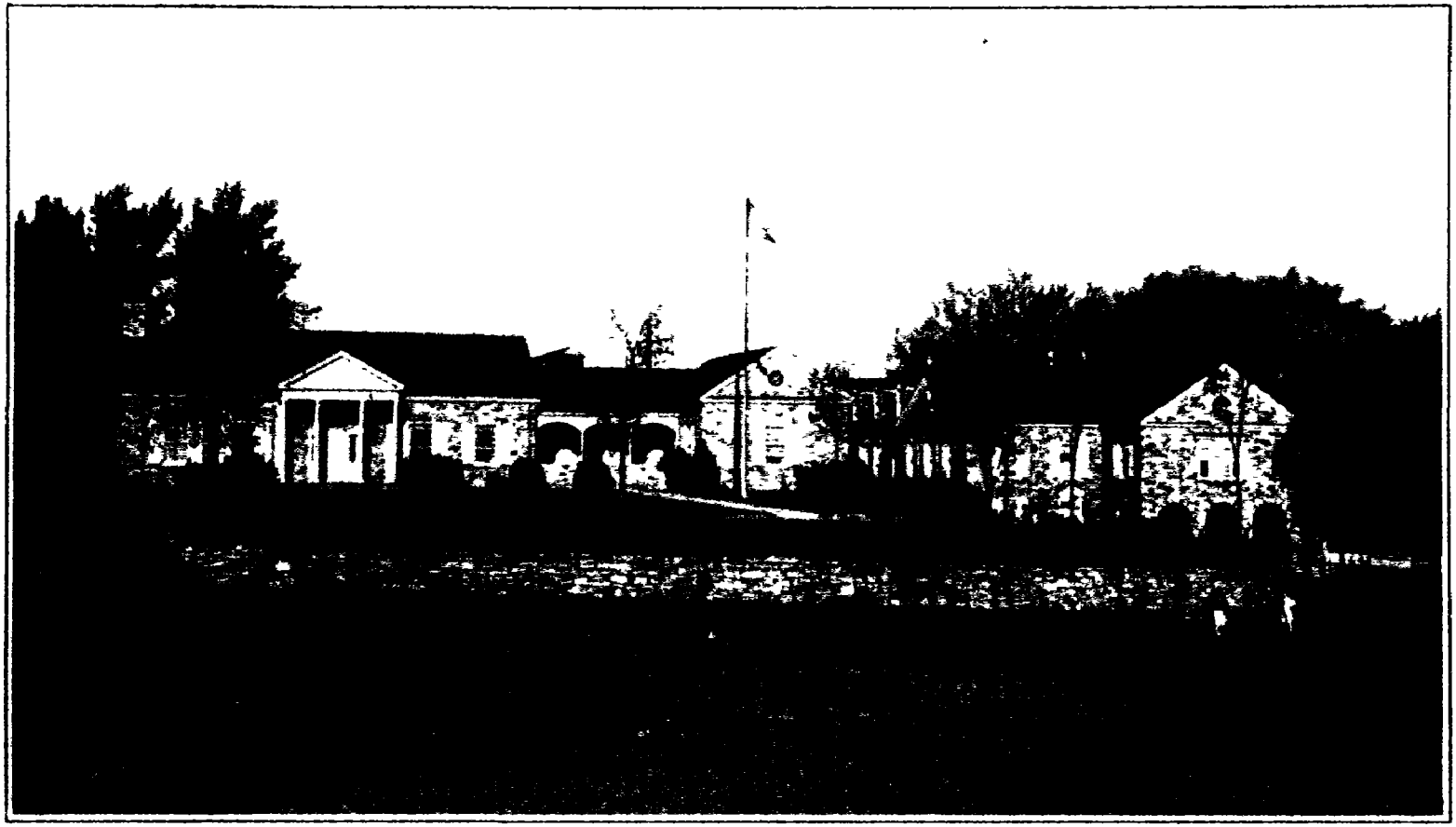
The local newspapers, while not so important as pupils and teachers, also have an important place. Their importance is probably proportional to the size of the community. In small communities where personal contact and informal methods are the chief means of communication, the newspaper is less significant than in urban centers. In such places the "grapevine," the back fence, the street corner, and the general store are the avenues through which the bulk of public information passes, and they constitute a much more efficient means of transmitting news than the newspaper, a large part of whose information is already

common knowledge long before it is put into print. In metropolitan centers, however, the newspaper is issued more frequently and becomes a chief source of information. Informal contacts are less potent; the unifying factor is the reading of the same source of news. The average city dweller knows relatively little about his schools except through the newspaper. Will Rogers's oft-repeated lament, "All I know is what I read in the papers," was the perplexed utterance of one accustomed to the "grapevine" for his information, who in large cities found himself dependent upon the newspapers.

The Community and the Curriculum

The highest form of school-community relationships are those which grow out of a curriculum based on the real life needs of the pupils served. Such a curriculum is built out of the activities of the community organizations, the home, and the church. It is based on the problems which the pupils must face now and in later life. It is not limited to the local community, but uses local problems as examples and as a basis for study, and shows their relationships to other communities, local, state, national, and international. It then brings to bear upon the problems all the information and intelligence which can be obtained from textbook references, magazines, newspapers, and experiences of other communities. When such a progressive curriculum is developed, the local community furnishes the problems, the situation in which they must be solved, and some of the resources for their solution; the school brings these factors together in preparing a solution. The development of effective school-community relationships can be most readily understood by examining illustrations of work which schools have done.

Health. In one school the teachers felt that the health program was not functioning in terms of pupil and community needs. A study of the health needs of the community was begun. Through conversations with the children, their health habits were analyzed; through the school physician, physical defects were tabulated;



Courtesy of Maurice S. Hammond

VANHORNESVILLE CENTRAL SCHOOL, VANHORNESVILLE, N. Y.



Courtesy of Maurice S. Hammond

INSTRUCTION IN VOCATIONAL AGRICULTURE HELPS THE COMMUNITY

through visits to the homes and with the parents, a better understanding of the pupils' daily life was acquired; and through a general study of the community — its location, climate, and other pertinent factors — the provisions for sanitation and health protection were discovered.

Agricultural Education. One of the most effective developments of the curriculum, in terms of community resources, has been the work of departments of vocational agriculture operating under the Federal Smith-Hughes law. Courses in farm crops and animal husbandry are based on careful surveys of local farming practice. These surveys show the relative importance of the different field crops, corn, wheat, legumes, cotton, fruit, tobacco, or other local crops. They also show the relative importance of the different kinds of live stock, beef cattle, dairy cattle, hogs, sheep, and poultry. Study is then made of the possibilities of introducing new kinds of crops or live stock which now receive little or no attention. On the basis of this survey, the curriculum of the agricultural courses is set up to give the training which fills the greatest need. In addition, each boy carries on a project in which he tries out the practices studied in the classroom. Types of projects include raising an acre of corn, ten acres of wheat, a calf, or a litter of pigs. These projects are carried on under the joint supervision of teacher and parent — an important avenue through which school and community relationships are established.

Beautification of the Community. In a considerable number of schools the children have contributed to community life and thus strengthened basic community relationships through efforts to beautify the community. Often this has meant landscaping, planting, and caring for the school grounds. In some cases the program has gone much further. A significant development is taking place at Owatonna, Minnesota, where the art program of the school is made to contribute to everyday life. A survey of the community was made to discover the places where art could be made to function. This survey revealed the need of attractive and appropriate decorations for the homes, the offices, the power plant, and the stores. With the background of this survey, the art instructor

and his classes worked on problems of decoration as requests for their services were made. They worked on the decoration of classrooms, and on the problem of providing a suitable color scheme for several offices and for the local power plant. Out of this experience the pupils are not only learning to appreciate art in its application to everyday things; they are also definitely enriching the life of the community.

A Curriculum That Grew Out of Community Life. An example of a curriculum which largely grew out of community life is found in the school of a small rural community in North Carolina. In this community, the school adopted the philosophy that the child's growth comes primarily through intelligent acquaintance with his native surroundings, through closer adaptation of the individual to those surroundings, and through the adaptation of those surroundings more nearly to the individual's rising standards of what constitutes a desirable community. The leaders realized that progress must be made slowly and carefully, with the continuing confidence of the community. The ultimate goal should be a curriculum in which due consideration is given the curriculum prescribed by the state, but in which, at the same time, there is a balance among home, community, and school learnings, and among factual or drill study, health activities, and the more creative types of enterprises. With this background in mind, the program was developed as described in the following paragraphs:

The Ellerbe School [1] at Ellerbe, North Carolina, is a small consolidated rural school, situated in a town of some six hundred inhabitants, and in a very infertile area — the Sand Hills.

The grounds and buildings, some years ago, were as severe and bare as could well be imagined. First attempts at beautification failed because trees and shrubs were not valued by patrons or pupils. By patient education the following results were obtained. Ivy was planted on the building. A gully in front of the school, about ten by three hundred feet in width and length, was filled in by the children and their fathers. Bermuda grass was planted over the campus, making two blades grow where none grew before. A reforestation project covered three of the twelve

[1] Richard F. Little is principal, and P. W. Edwards is teacher of agriculture.

acres. Magnolias, given one each by the graduates, now line the driveways and bloom each year. Hundreds of trees were transplanted from the forests. Most important of all, a slat house about forty feet square was erected out of waste strips from a saw mill, and, by simulating the partial shade of a forest, made the ideal condition for starting seedlings. During the years several hundred thousand evergreen seedlings of various sorts have been started. The second year they are removed to out-of-door rows and cultivated for one or two more seasons. These rows now cover more than an acre In consequence of this nursery the school grounds are an exhibit of tasteful planting. In addition, trees and shrubs have been given freely to other schools and to the churches of the community, and the homes are reflecting this heightening taste. Nearly a thousand plants have gone from the school nursery to the children's homes and many others have been moved from the woods As a part of the work in agriculture, the teacher and students enter a home, talk with the family about the beautification of their yard, draw up plans with them, and actually help the family carry out the plans, using, as far as necessary, plants from the school nursery This project has involved practically no money. It has been conducted without great sacrifice of regular school hours. It is encouraging to know that at least eight other schools have followed this example

Within the buildings of the school, the walls have repeatedly been calcimined or painted; hundreds of dollars' worth of good pictures have been accumulated. Furniture and equipment have been built, and a museum has been developed. There is now a pride in and a care of the property that is most gratifying.

Starting with a few poultry of highest quality, bought with money cleared on an agricultural project, and using for a year a small incubator, it became apparent that a large incubator was essential. Eggs from two hundred and seventy egg hens were too valuable to eat when the average laying capacity of the hens of the community was about seventy-five eggs per year. Men of the community formed a company with the boys, who, for their part, erected a building and put within the building the largest incubator that had ever been erected by other than factory experts. Ten thousand eggs could be turned with a single lever. Eggs from purebred stock only were accepted for incubation, and within a few years the poultry of that locality had been greatly improved. The incubator, insured, unfortunately burned. But with the impetus that had been given, the poultry industry grew so that each two or three

weeks a freight car is drawn into the town and loaded with from five to seven thousand pounds of poultry.

The teacher of agriculture has organized in the community a curb market for the selling of produce to truckers who buy at wholesale and retail the goods over the state and adjoining states. It is a thrilling sight to see the village square marked with piles of melons, baskets of fruit, or other produce. The truckers have been brought in through the use of hand bills, newspaper publicity, tire cover ads, and personal solicitations. Those who are able to dispose of their loads at a profit return, many of them as often as three times a week, through the season. Approximately fifteen thousand dollars' worth of produce has been sold in this market during the past two years. And, more important, it offers incentive toward mutual effort in the improvement of crops.

Not many years ago the children of the community knew almost nothing of play. Through a forward-looking program various games were taught and remarkable skill in sports came to characterize the boys and girls of the school. Swings, a giant stride, seesaws, and large slides were constructed by the students. Two excellent tennis courts have been surfaced, neatly surrounded with painted stops and shrubbery. A very modest golf course was laid out about the grounds and enjoyed by students and townspeople. An athletic field was cleared of stumps, clayed, enclosed by a fence, and bleachers were built, all the work being done by students outside of school hours. The greatest triumph was the building by the boys, unaided except for one teacher, of a gymnasium fifty by seventy feet. The floor was free from obstructions and the ceiling afforded eighteen feet in the clear. Poor as the community was, all these projects were accomplished without aid from the school board, the expense being met by entrance fees to the games and dramatic productions.[1]

This account describes a school which is studying the vital problems of community life and contributing to their solution. It illustrates the principle that the curriculum should grow out of the life of the community and return to enrich it.

What Constitutes Desirable Activities? A school or teacher em-

[1] Morris Mitchell, "Progressive Methods in a Small High School." Ch. IV, pp. 24–26, of National Education Association, Department Rural Education, *Economical Enrichment of the Small Secondary School Curriculum*, a bulletin issued in February, 1934.

barking on an educational activity growing out of the life of the community needs some guideposts by which to select and carry on a desirable activity and to check its value after completion. In a pioneer book, *Youth Serves the Community*, describing projects in which pupils participated in community activities, Hanna presents the criteria used for selecting the projects which were worth publishing. These criteria are divided into two groups: (1) those which have to do with *educational value to the individual*, and (2) those which have to do with *significant value to the community*. Since these criteria will aid the teacher in selecting and carrying out a project in the local school they are presented here:

Educational Values to the Pupil

1. The youth who participate in a project must sense its social significance.
2. Youth must have a part in planning the project.
3. Youth must have some sporting chance of carrying the project proposed through to more or less successful conclusion.
4. Youth must accept the responsibility for success or failure of a project.
5. Youth must actually grow in total personality as a result of the work undertaken.

Social Values to the Community

1. Any project must culminate in the actual improvement of living in the community.
2. Projects must clearly be an obligation of youth as well as adulthood.
3. In so far as possible, projects must get at the basic problems of improving social welfare.[1]

Adult Education in the Community

The progress of adult education in recent years has become a potent force in the development of sound school-community relationships. The depression of the 1930's stimulated adults to

[1] Paul R. Hanna, *Youth Serves the Community*, pp. 35–40. Appleton-Century, 1936.

greater study of the social and economic forces which are playing upon our civilization. This, together with the provision of Federal Emergency Funds for holding adult classes, gave the movement emphasis. Through adult classes the school increased its services to the community and reached a large group whom it did not otherwise directly serve. At the same time it gave the school new contacts with community life and greater opportunity to understand and use it.

The school soon discovers that there are no compulsory attendance laws for adults. They require a program which is in response to definite adult needs, rather than one which is merely a miscellaneous collection of high school subjects. Instructors cannot pose as experts with a full knowledge of the subject. Their function is to have a thorough knowledge of the subject, to guide discussions, and to bring the best thought of the group to bear on the problems under consideration.

Adult classes are frequently divided into two general groups: (1) occupational, and (2) general or cultural. The first group includes classes that directly prepare for a vocation such as machinist, typist, bus driver, clerk, farmer, physician, teacher, or lawyer. These afford training to do one's present job better, or retraining to enter another occupation. With the constant change in occupations, retraining has become important; teamsters are learning to become truck drivers, and street-car motormen to become bus drivers, as new inventions displace them from their former occupations. In rural communities the chief adult education activities of this nature are carried on in connection with the public high school and financed partly by Federal and state funds provided under the Smith-Hughes and subsequent laws. They are also carried on through the coöperative agricultural and home demonstration extension service operating under the United States Department of Agriculture and state agricultural colleges, which work through county agricultural and home demonstration extension agents. Vocational adult education is only a part of the total program of these agencies.

Adult education has come to mean usually the general or cultural

subjects. The programs already described in this chapter show how adult education may be an integral part of the total school program. The problems of beautifying the Owatonna community were studied and carried out by both children and adults; the introduction of poultry raising into the Ellerbe community was a joint enterprise of adults and high school boys. Such coöperative activities, in which adults and youth are studying and working together, represent the highest type of school-community relationships and can be developed in the study of many community problems.

An illustration of how the adult education program was organized at the request of the people, and built upon their needs and desires, is found in Kings Ferry, New York. This rural high school is establishing fundamental school-community relationships as shown by the following description:

It was "dedication night" at the new Central School building in Kings Ferry, New York, and farm folks for miles around had turned out for the event.

Never before had they had anything like this new schoolhouse. For several months many citizens of the community had campaigned for it, convincing the doubters that "taxes will really be lower" (and they are), helping decide where to put the building, and then watching it go up, week by week

Men and women whose own educations had stopped anywhere from the McGuffey's third reader to college, who had sat on slab seats and written on slates and stayed out fall and spring to work, marveled at the new home-economics living-room with its fireplace, the kitchen where girls learn to cook, the manual-training room, the library, the big gymnasium and stage, and so on.

"It's great the opportunities children have these days," one woman in a group was saying. "Makes me wish I could go back to school again myself."

Suddenly somebody had a new idea — no one seems to remember who.

"Well, why *can't* we?" she asked excitedly. "Why can't we use this new schoolhouse as well as our children can?"

Straightway they went to E. A. Frier, Jr., principal, and were delighted to find that he had been thinking the same thing. Frier went to his school board of five farmers.

"It won't cost money," he told them, "except a small amount for lighting the building. Our regular teachers will do the work without extra pay."

The upshot was that a new "student body" of 104 adults and older young folks started coming to the schoolhouse every Tuesday and Thursday night to study five courses: "World Affairs" — in which District Superintendent Clyde B. Myers discussed with them such topics as "Japan and the Far East," "Sore Sports of Europe," "America, Left or Right?"; typewriting; two classes in music — one for a new chorus and another for a new community orchestra; farming and economics, which included discussions of Secretary Wallace's policies, farm accounts, and the New York State agricultural outlook; a course in clothing, accessories, and cosmetics, which began with a fashion show.

Every school night the "students" wound up the evening by visiting and sometimes with special programs. And at the end of the course they had an evening's program, with a speaker from Cornell University, at which they received "certificates of attendance" duly signed by the principal and president of the school board. The certificates were the nearest thing to a diploma that many of them had ever had. You can find some of these certificates hanging on farmhouse walls today.

This winter all of these folks are back with many of their neighbors to study eight courses. They are going farther afield this time, including courses in Shakespeare and French.

"Our idea," as Mr. Frier explains, "is to come as near as possible to offering everything the school has to anyone who wants it and can absorb it. Not just agriculture and home economics, but everything."

In many other ways the new Kings Ferry school is the cultural and social center of the community. It is the "House of the People," not just of the boys and girls of school age. There the people find their winter lyceum entertainments, their library (a joint school and community affair open certain evenings as well as daytimes), their basketball games, their place to hold P.T.A. and other meetings, their home-talent dramatics, their music, and even their talking movies. Farmers have formed a basketball league and play twice a week. And now there is planned a "Young Bachelors' Club" of young fellows enrolled in high school.

What a far cry, I thought, from the days not so long ago when a group of citizens almost had to commit the crime of "breaking and entering" to use their school building of an evening. In Kings Ferry (as in many

another community nowadays) the schoolhouse is lighted nearly every night. [1]

Another illustration which departs even further from the traditional high school curriculum is the program for adults carried on by the Yuba City, California, high school in a community of 5,000 population. Space does not permit a complete description but a few paragraphs will indicate the nature of the program.

In 1932 the new high school in Yuba City, California, opened an Adult School, and thereby raised questions as to how it differed from a Night School. The principal stuck to the plan of finding unserved interests rather than of paralleling the old type of classes. An interest in music pointed the way to a chorus, and soon to two, one for men and one for women. Again playing the educational nonconformist, the principal found an admirable leader and teacher in one of the local clergymen, for whom a special teacher's credential was secured. At once the choruses were invited to sing at all manner of affairs in both counties, with the result that the Yuba City Adult School became favorably known outside its own territory

Still in the nonconformist mood, the principal met a request for instruction in making hooked rugs. In spite of all doubts and the shaking of some pedagogical heads, the class was extremely popular from the first. Women of all ages and interests in life became absorbed in the making of hooked rugs. The instructor was driven to her limit of strength by calls for work. Once more people approved the Night School. But the principal himself little knew what would grow out of the class in the history of rugs Women became particularly interested in the history of Oriental rugs, and through rugs in the cultures of different peoples as portrayed in rug patterns, rug materials, and rug workmanship. Library resources were ransacked, not only locally but by requests in the state library resources. Quite as might be expected, a broadening into other homecraft work soon came. Floors were covered with hooked rugs, and eagerness to do more things of a creative kind led women to amplify and beautify their homes with their own craftsmanship. Basketry became especially popular; block-printing, velvet

[1] Carrol P Streeter, "Rural High School That Yields a Prophecy: House of the People," *Farmer's Wife*, April, 1935, and *School Review*, Vol. XLIII, May, 1935, pp. 326–328.

tooling, pottery, and weaving were some of the other handcrafts which were taught.[1]

These illustrations of vital adult education programs indicate some of the essential elements in fundamental community relationships. Such relationships grow naturally out of the activities of the school and provide much more vital and enduring ties than artificial efforts to gain public attention through high-pressure methods which in and of themselves have little educational value.

Promoting Community Activities

The discussion thus far has been primarily concerned with the problem of building a more effective educational program in the school. Let us consider briefly the second approach -- the responsibility of the school for providing an education which will strengthen the programs of other agencies — the home, the church, the library, women's clubs, service clubs, farmers' coöperative organizations, the agricultural extension service, Red Cross, Boy Scouts, and 4-H Clubs.

An important function of the school is to train for leadership. This training might well be carried on with the institutions of the community in mind. Both in classes and in extracurricular activities the leadership experiences of pupils might well be guided in terms of leadership needs in church activities — such as those of the trustees, the board of elders, the Sunday school, the women's organizations, and the young people's organizations — or in terms of needed leadership in the other organizations. There should also be a study of the different organizations to discover the common elements in leadership training, such as parliamentary practice, leading discussion groups, and presiding at a trustees meeting.

Another responsibility of the school is to train for membership in an organization. Followers are as important as leaders. How to coöperate under leadership, and how to choose leaders discriminatingly, should receive attention.

[1] Benson Y. Landis and John D. Willard, *Rural Adult Education*, pp. 59–60. By permission of The Macmillan Company, publishers, 1933.

The school building is becoming more and more a meeting place for community agencies. It has an excellent opportunity to expand its community relationships through providing comfortable quarters in which groups and organizations can meet. A sound educational policy requires the strengthening of other institutions. Only when other community organizations are carrying on strong programs can the school function most effectively.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. What are some of the values which may be expected from developing the curriculum on the basis of community life?
2. How can a teacher distinguish between community activities of most value to his pupils and those of least value?
3. What types of community activities are of value to all the pupils and what types to individuals only?
4. What is the difference between the educational activities of the community and those which belong to the public school? How would you determine which activities belong to the school?
5. Using examples, discuss the difference between the school which tends to draw all educational activities to itself and the school which aims to strengthen other educational agencies.
6. What are the chief avenues through which the school makes the life of the community in the situation you know best?
7. If you were making a survey to determine what should be taught in the health program of the school, what are some of the questions you would want answered?
8. List the information you would want about the community in teaching a particular subject.
9. What do you consider the chief values of the program at Ellerbe, North Carolina, as described here? The chief problems in carrying out such a program?
10. Why has adult education made such rapid strides in recent years?
11. How does a program of adult education improve school-community relationships?
12. When and how should the school building be used for community activities?
13. How does the school board represent the will of the community?

SELECTED REFERENCES FOR FURTHER READING

John C. Almack and Albert R. Lang, *Problems of the Teaching Profession*, Ch. XVI. Houghton Mifflin, 1925.

Walter Burr, *Small Towns* Macmillan, 1929.

Julian E. Butterworth, *The Parent-Teacher Association and Its Work.* Macmillan, 1928.

Olive D. Campbell, *The Danish Folk School.* Macmillan, 1928.

William W. Carpenter and John Rufi, *The Teacher and Secondary School Administration*, Ch. X. Ginn, 1931.

Ellsworth Collings, *An Experiment with a Project Curriculum.* Macmillan, 1923.

George S. Counts and others, *The Social Foundations of Education* (Part IX of the report of the American Historical Association Commission on the Social Studies) Scribner, 1934.

John Dewey, *Democracy and Education*, Ch. VII. Macmillan, 1916.

H. Paul Douglass, *The Little Town.* Macmillan, 1927.

Isaac N. Edwards, "The Law Governing the Use of School Property for Other than School Purposes," *Elementary School Journal*, Vol. XXVI (April, 1926), pp. 585–590.

Belmont Farley, *Interpreting the Secondary School to the Public.* United States Office of Education, Bulletin 1932, No. 17; National Survey of Secondary Education, Monograph No. 16.

Melvin E. Haggerty, *Art a Way of Life.* University of Minnesota Press, 1935.

Joseph K. Hart, *Community Organization.* Macmillan, 1920.

Robert B. Hudson, *Radburn, a Plan of Living.* American Association for Adult Education, 1934.

Frederick E. Johnson, *The Church and Society* Abingdon Press, 1935.

Junior-Senior High School Clearing House, Vol. IX, No. 7 (March, 1935) — an issue on "School and Community."

Benson Y. Landis, *Handbook of Rural Social Resources.* University of Chicago Press, 1928.

—— and John D. Willard, *Rural Adult Education*, Ch. XIII, pp. 169–179. Macmillan, 1933.

R. Emerson Langfitt, Frank W. Cyr, and N. William Newsom, *The Small High School at Work*, Chs. I, XVII–XVIII. American Book Company, 1936.

Robert S. and Helen M. Lynd, *Middletown.* Harcourt, Brace, 1929.

Mary Mims, *The Awakening Community.* Macmillan, 1932.

National Education Association, Department of Elementary School Principals, Eleventh Yearbook (1932): *The Principal and His Community.*

—— Department of Rural Education, *Economical Enrichment of the Small Secondary School Curriculum.* A bulletin issued in February, 1934.

National Society for the Study of Education, Thirtieth Yearbook (1931), Part I: *The Status of Rural Education.*

Jesse H. Newlon, "Public Opinion and Education," Ch. IX of National Education Association, Department of Superintendence, Thirteenth Yearbook (1935): *Social Change and Education.*

Nathan Peyser, "The School as the Center of the Community," *Journal of Educational Sociology,* Vol. IX (February, 1936), pp 354–363.

Carl J. Ratzloff, "The Community Education Movement in Sweden," *Journal of Educational Sociology,* Vol. IX (November and December, 1935), pp. 167–178 and 205–214.

E. Dwight Sanderson, *The Rural Community.* Ginn, 1932.

Harry A. Wann, "Social Planning in a Community," *Journal of Educational Sociology,* Vol. IX (April, 1936), pp. 494–508

Joseph L. Wheeler, *The Library and the Community.* American Library Association, 1924.

Louis R Wilson and others, *County Library Service in the South.* University of Chicago Press, 1925

Arthur E. Wood, *Community Problems* Century, 1928

Julius Yourman, "Community Coordination — The Next 'Movement' in Education," *Journal of Educational Sociology,* Vol. IX (February, 1936), pp. 327–330.

CHAPTER VI

GENERAL SCOPE OF EDUCATION IN THE UNITED STATES

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The General Development

In the attempt to secure a general view of the scope of education in the United States, it is helpful to keep in mind the historical background explained in Chapter II The transplanting of European educational ideals and practices in New England and the adjustments of the schools to meet the needs of the society in a new world are essential considerations in understanding our present educational institutions. The dominating religious influence in our early schools; the European traditions of a higher education for the select few; the struggle for existence under conditions of pioneer life which did not emphasize the need for formal education beyond the rudiments of reading, writing, and numbers; the recognized need of higher education for the preparation of ministers; the belief that all should be able to read the Scriptures; and the financial limitations and other demands of life to be met before schools could be established, were important forces in molding the forms and functions of the early New England schools.

When the fruits of industry provided a margin of goods beyond those needed for immediate existence, the schools were called upon to give educational opportunities beyond the elements of reading, not only for those preparing for the ministry but for workers and leaders in other walks of life. The demands upon the schools stimulated offerings in navigation, surveying, accounts, and similar activities closely related to the economic life of the period. The

large share of private support for schools gradually gave way to a larger and larger share of public support as the colonies increasingly recognized the need of some educational opportunities for all children.

As an institution the American school clearly reflects the changes and influences in the social, political, and economic life of the country. The roots of the changing school grow from our American culture. Our system of education is an integral part of our society. To attempt to think of the schools apart from the national purposes and our societal relationships is a fundamental error. In a democracy the school radiates broad social ideals without many of the domineering controls found under a dictatorship.

Influence of Democratic Ideals

The American schools have been greatly influenced by democratic ideals. The common acceptance, in American thinking, of equality of opportunity and the need of universal education for the welfare of our democracy have expanded the scope, forms, and functions of our schools. In a very real sense, our system of schools is an expression of the faith of democracy in education.

The rapid extension of free public education from the nursery school to the university exemplifies the development of our society. It is a concrete embodiment of the democratic ideal that the door should be open for each individual to advance as far as possible toward the perfect individual and for social good.

As democratic ideals have been translated into educational practices, certain movements such as compulsory school attendance laws and the rapid expansion of school population, even beyond the limit of the compulsory school age, have been common phenomena in American society. The trend in the upper limit of the compulsory school attendance laws in the various states has been constantly upward, until it is now as high as eighteen years in a few states. The enormous increase in the percentage of boys and girls of high school age who attend the secondary schools has been a marked characteristic of this nation during the last

twenty-five years. Another equally remarkable aspect of American life has been the rapid growth of the percentage of our population attending junior colleges, colleges, and universities. The development of a great educational system is frequently pointed out as a partial fulfillment of "the American dream."

The democratic tradition in American society is well stated in the following quotations from a report of the American Historical Association:

> The highest and most characteristic ethical expression of the genius of the American people is the ideal of democracy. Throughout the major part of their history as a nation they have cherished the conviction that they were marching in the vanguard of the age-long struggle against tyranny, that they were the foremost champions of human liberty, that they were engaged in a bold experiment in social relationships conceived in terms of the interests of ordinary men and destined to have meaning for the whole of mankind. . . .[1]

> Generation after generation the American people proclaimed to themselves and to the world their devotion to democracy — to the ideal of a land unmarked by class divisions and dedicated to the realization of the highest dreams of mankind — to a land of social equality and justice where no man would be debased or exalted by the accidents of birth, but where all would be provided with opportunities for the fullest and richest development of their powers.[2]

An excellent statement of the guiding philosophy of education for a democracy was made by Superintendent Boynton, a former president of the Department of Superintendence of the National Education Association, in these words:

> That every child born in or adopted by this republic has the right to have developed through education whatever of talent he may possess without reference to quantity, quality, or type of that talent, and that he should have assured to him the opportunity to go as far as his ambition will permit.[3]

[1] George S. Counts and others, *Social Foundations of Education* (Part IX of the Report of the American Historical Association Commission on the Social Studies), p 9 Scribner, 1934. [2] *Ibid.*, p. 10

[3] "Again the Open Door in Education," *Journal of the National Education Association*, Vol. XVI (April, 1927), p. 102.

As social institutions, the schools are changing in our changing society, and our accepted democratic ideals continue to point the way to further desirable development.

Educational and Governmental Organization

The general organization and special forms of our schools should be studied in the light of the relationship which they bear to the units of governmental organization. In Chapter II a picture of the development of American public education was presented. The relationship of the schools to the earlier and later units of government was explained. In Chapters VIII and IX a discussion of the support, control, and costs of public education will indicate the relationship between school organization and governmental units.

National and State Organization. In contrast to those of many European nations, our system of education cannot be classified as a true national system. Our national government is not the unit of final support and administrative control of the schools. The makers of our Constitution did not expressly provide for a system of public schools, nor did they include in the Constitution any statement covering the relationship of the national government to education. A provision in the Constitution reserves to the several states all powers and duties not expressly delegated to the national government. In this country, therefore, the state has come to be the final unit of support and control of education.

In a general way the political subdivisions of the state, such as the county, city, town, and township, have developed as the administrative units of school support and control under the general direction of the state. In some states the boundaries of school districts have not followed exactly the lines of the other political subdivisions of the state, but all such school districts are commonly recognized as subdivisions of the state and are responsible to the state as the central authority.

Although the Federal Government is not the unit for support or control of education, the history of Federal action shows a long

line of encouragements to various educational activities. The Land Ordinances of 1785 and 1787 and subsequent Congressional action provided that one section of land in each township of the states carved from the Northwest Territory should be sold for the benefit of public education. For many of the states admitted to the Union at a later date, the amount of public land thus dedicated to educational support was increased to two and four sections in each township. Under the Ordinance of 1787 two townships or more were reserved to the new states for the establishment of universities. The Morrill Act, in 1862, provided for the donation of certain public land to all states to establish colleges for instruction in mechanical and agricultural arts. Congress has made several provisions for grants of money to the colleges benefited by the Morrill Act of 1862, which have been called land-grant colleges.

The Smith-Hughes Act of 1917 is a good example of one of several laws passed by Congress to grant money to the states for the encouragement of agriculture, home-making, industry, and commerce. The money granted by Congress is spent by the states under certain general regulations. It would be possible to prepare a rather long list of educational activities in which our national government has directly engaged or which it has stimulated and supported.

Demand for Federal Participation. One of our current social and educational problems is the question of the advisability of participation by the Federal Government in the support of educational activities. For some time there has been much advocacy of a proposal to create a new post in the President's cabinet, to be called the Department of Education or the Department of Public Welfare. Along with the recognition of the importance of education as a national function by creating a new office of cabinet rank, it is proposed to encourage the appropriations by Congress for educational purposes in the whole country.

One of the chief arguments of the leaders favorable to this movement is the necessity of providing adequate educational opportunities for all citizens of the country. It is demonstrated that

the various states have very unequal ability to establish and maintain satisfactory educational opportunities. It is also argued that the Federal Government is the only governmental unit which can secure satisfactory educational opportunities for all.

The opponents of Federal support and control include in their arguments the danger of a centralized control of education which would be too closely linked to the current organization of political power. The comparison is made with some European nations that have strongly centralized educational systems which are quite responsive to political propaganda. All teachers and prospective teachers should become acquainted with the merits and demerits of this significant question of public education.

Office of Education. The United States Office of Education is an excellent example of a Federal activity which contributes largely to the promotion of education. The Office of Education is a division of the Department of the Interior and is under the direction of the Commissioner of Education, who is appointed by the President and is subordinate to the Secretary of the Interior. In rendering an important national service, this office has been considered as a "national bookkeeper of American education." Comprehensive information about many phases of education is collected and disseminated through a long list of publications, conferences, correspondence, addresses, radio broadcasts, and in other ways.

Whatever the outcome may be regarding the extent of the participation of our national government in education, it is clear that the services of the Office of Education should be expanded along those lines in which only an organization having the support and prestige of the national government can do adequate service.[1] Thus, the collection of school statistics from all the states can best be performed by the Office of Education. To make comparisons and to conduct inquiries regarding current problems and trends of educational practices are highly valuable educational services.

[1] The beginning student in education cannot afford to neglect the opportunity to become acquainted with the long list of publications prepared by the Office of Education and distributed by the Superintendent of Documents, Washington, D. C. He should also know of the various types of material available through this national agency.

Scope of Educational Institutions

The extensive scope and the variety of educational institutions in the United States reflect the story of the general development of education. The acceptance of our democratic ideals for free public education has expanded this governmental function far beyond that of any other nation. Among the present forms of organized public educational institutions we find the pre-school or nursery, kindergarten, elementary school, junior high school, senior high school, junior college, college, professional school, and university. The extension of the various levels of educational opportunity from the elementary school has been downward to include the kindergarten and nursery school and upward to include the university. Most beginning students of education will be able to recognize that these various units are in school systems which they attended or in those with which they are acquainted.

The student with little or no teaching experience will find the arrangement of Figure 1 helpful in understanding the usual sequence of relationships among the various types of schools. The vertical columns showing normal age and school year are placed beside the respective types of schools. The child five years of age will normally be found in the home or kindergarten, whereas the youth of sixteen years who remains in school will normally be found in the senior high school, four-year high school, or the part-time continuation school. At nineteen years of age the young man or woman who continues his formal education will normally be in the undergraduate college, normal school, teachers college, or in some phase of adult education.

It is important to remember that the various units have not been developed in accordance with a preconceived plan of national education, but rather in response to the changing needs in our American society. Students of education in other nations point out the lack of uniformity and the apparent confusion and overlapping of educational units in the United States. Perhaps the American public school system is a good example of the growth and development of social institutions in a democratic society.

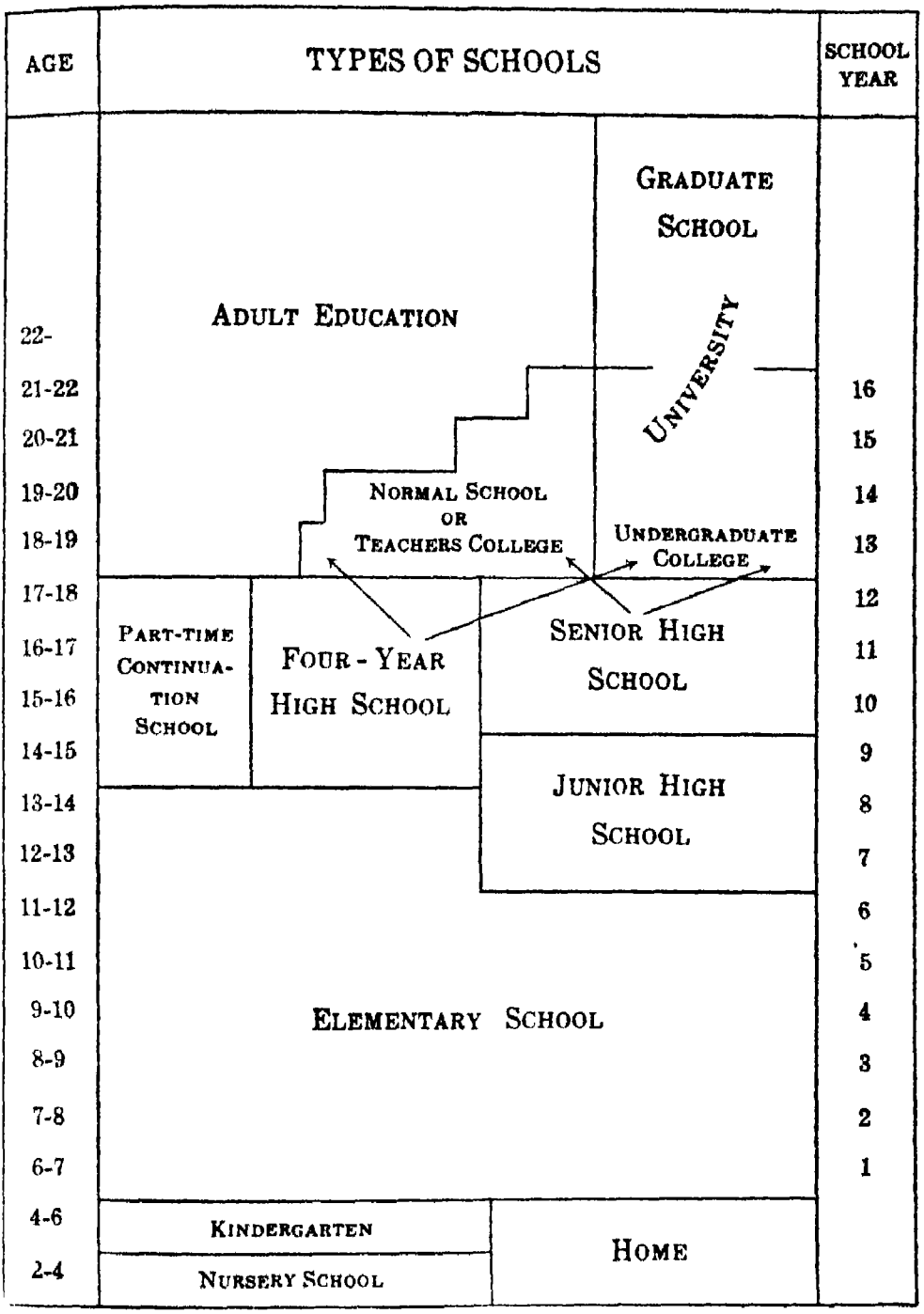


FIG. 1. THE AMERICAN SCHOOL SYSTEM [1]

[1] Adapted from Isaac L. Kandel, *Comparative Education*, p. 193. Houghton Mifflin, 1933.

School Enrollments

Some idea of the scope and importance of education in the United States can be readily gained from an examination of school enrollments.[1]

The following extracts from the *Biennial Survey of Education, 1932–34*, United States Office of Education, will be found of interest:

The total number of pupils enrolled in the public elementary and secondary schools of continental United States in 1933–34 was 26,434,193. Including at least 2,691,033 enrollments in private and parochial schools, the total number of children attending elementary and secondary schools in 1934 was 29,125,226 This number is difficult to grasp. Expressed somewhat concretely, this vast army of school children equals more than the total population of the states of New York, Pennsylvania, and New Jersey. If the school children stood in line, each child occupying the space of 1 foot, the line would be 5,516 miles in length. . .

In 1920, 20 9 per cent of the total population of continental United States was enrolled in the public elementary and secondary schools; in 1932, 21.1 per cent; and in 1934, 20.9 per cent. Including enrollments in private and parochial schools, 23 per cent of the total population is attending school of elementary or secondary grade.[2]

Enrollment by States. A significant recent development in the enrollments of the schools in several states is an actual decrease over enrollments of preceding years. During the biennial school period from 1931–32 to 1933–34 a decrease in enrollment was reported in nineteen states. The decrease in enrollment in these nineteen states ranged from 0.1 per cent in Vermont to 15.6 per cent in

[1] At the date of publication of this book, the latest complete statistics of all state school systems available in the United States Office of Education were for the school year 1933–34. These figures should be supplemented by later figures from the United States Office of Education and from the Department of Education of the state in which the reader lives. Beginning students in education will profit greatly from the experience of locating the reports of their respective state departments of education and of the United States Office of Education

[2] *Statistics of State School Systems, 1933–34*, pp. 2, 3. United States Office of Education, Bulletin 1935, No. 2 (advance pages).

TABLE I

ENROLLMENTS BY STATES 1930, 1932, AND 1934 [1]

STATE	ENROLLMENTS			PER CENT OF INCREASE OR DECREASE		
	1930	1932	1934	FROM 1930 TO 1932	FROM 1930 TO 1934	FROM 1932 TO 1934
Continental U. S.	**25,678,015**	**26,275,441**	**26,434,193**	**2.3**	**2.9**	**0.6**
Alabama	622,988	639,836	648,981	+ 2 7	+ 4 2	+ 1 4
Arizona	103,806	97,900	92 781	− 5 7	− 10 6	− 5 2
Arkansas	456,185	446,151	456,680	- 2 2	+ 1	+ 2 4
California	1,068,683	1,123,550	1,116,058	+ 5 2	+ 4 4	− 7
Colorado	240,482	247,074	238,808	+ 2 7	− 7	− 3 3
Connecticut	319,453	325,493	327,225	+ 1 9	+ 2 4	+ 5
Delaware	42,360	44,522	45,948	+ 5 1	+ 8 5	+ 3 2
District of Columbia	80,965	90,087	94,112	+ 11 3	+ 16 2	+ 4 5
Florida	346,434	367,758	382,510	+ 6 2	+ 10 4	+ 4 0
Georgia	713,290	742,756	764 865	+ 4 1	+ 7 2	+ 3 0
Idaho	120,947	119 123	118 346	− 1 5	− 2 2	− 7
Illinois	1,395,907	1,415,553	1,384 651	+ 1 4	− 8	- 2 2
Indiana	667,379	687,629	696 513	+ 3 0	+ 4 4	+ 1 3
Iowa	554,655	555,341	547 574	+ 1	− 1 3	− 1 4
Kansas	431,166	421,354	421,510	− 2 3	- 2 2	[2] +
Kentucky	588,354	613,119	609,684	+ 4 2	+ 3 6	− 6
Louisiana	434,557	447,517	461,607	+ 3 0	+ 6 2	+ 3 1
Maine	154,455	161,756	166,747	+ 4 7	+ 8 0	+ 3 1
Maryland	277,459	288,169	293 678	+ 3 9	+ 5 8	+ 1 9
Massachusetts	759 492	782 225	793,847	+ 3 0	+ 4 5	+ 1 5
Michigan	970,582	996,825	976,089	+ 2 7	+ 6	− 2 1
Minnesota	551,741	558 148	559,922	+ 1 2	+ 1 5	+ .3
Mississippi	595,449	581,759	608,036	− 2 3	+ 2 1	+ 4 5
Missouri	656,073	683,830	719,588	+ 4 2	+ 9 7	+ 5 2
Montana	120,337	119,134	117,566	− 1 0	− 2 3	- 1 3
Nebraska	325,216	324,241	316 756	− 3	− 2 6	− 2 3
Nevada	18 041	19 840	19,365	+ 10 0	+ 7 3	− 2 4
New Hampshire	74,240	76,431	77 753	+ 3 0	+ 4 7	+ 1 7
New Jersey	792,012	821,532	827 435	+ 3 7	+ 4 5	+ 7
New Mexico	102,084	109,525	92,449	+ 7 3	[3] − 9 4	[3] − 15 6
New York	2,141,479	2,240,196	2,296 868	+ 4 6	+ 7 3	+ 2 5
North Carolina	866,939	865 681	895 525	− 1	+ 3 3	+ 3 4
North Dakota	169,277	165,608	160,699	− 2 2	− 5 1	− 3 0
Ohio	1,277,636	1,299,212	1,300,037	+ 1 7	+ 1 8	+ 1
Oklahoma	682,650	673,297	623,497	− 1 4	[3] − 8 3	− 7 4
Oregon	202,595	204,792	201,556	+ 1 1	− 5	− 1 6
Pennsylvania	1,937,433	2,008,039	2,031,606	+ 3 6	+ 4 9	+ 1 2
Rhode Island	118,704	123,239	124,474	+ 3 8	+ 4 9	+ 1 0
South Carolina	469,370	475 074	486,712	+ 1 2	+ 3 7	+ 2.4
South Dakota	165,624	164,914	159,956	− 4	− 3 4	− 3 0
Tennessee	627,747	641,551	655,307	+ 2 2	+ 4.4	+ 2.1
Texas	1,308,028	1,309,746	1,311,662	+ 1	+ 3	+ .1
Utah	138,046	141,048	142,797	+ 2 2	+ 3.4	+ 1 2
Vermont	65,976	66,259	66,176	+ 4	+ 3	− .1
Virginia	562,956	582,982	585,657	+ 3.6	+ 4 0	+ 5
Washington	344,731	346,993	340,742	+ 7	− 1 2	− 1.8
West Virginia	395,505	422,357	434,864	+ 6.8	+ 10.0	+ 3.0
Wisconsin	564,022	579,605	583,133	+ 2 8	+ 3.4	+ .6
Wyoming	54,505	56,670	55,841	+ 4 0	+ 2 5	− 1.5

[1] From *Statistics of State School Systems 1933–34* pp 2, 3 United States Office of Education, Bulletin 1935, No 2 (advance pages)

[2] Less than 0.1 per cent

[3] Due to change in pupil personnel accounting using net state enrollment figure.

TABLE II

ENROLLMENTS BY GRADES 1930, 1932, AND 1934 [1]

GRADE OR YEAR	ENROLLMENT			NUMBER			PER CENT		
				INCREASE OR DECREASE [2] FROM			INCREASE OR DECREASE [2] FROM		
	1930	1932	1934	1930 to 1932	1930 to 1934	1932 to 1934	1930 to 1932	1930 to 1934	1932 to 1934
Kindergarten	723,443	701,403	601,775	*22,040*	*121,668*	*99,628*	*3 05*	*16 8*	*14.2*
First	4,150,919	3,930,196	3,716,852	*220,723*	*434,067*	*213,344*	*5.32*	*10 5*	*5.4*
Second	2,802,914	2,776,378	2,631,728	*26,536*	*171,186*	*144,650*	*.95*	*6.11*	*5.21*
Third	2,732.239	2,663,524	2,612,246	*68,715*	*119,993*	*51,278*	*2.51*	*4.39*	*1.93*
Fourth	2,599,229	2,589,098	2,573,010	*10,131*	*26,219*	*16,088*	*.39*	*1.01*	*.62*
Fifth	2,382,491	2,462,563	2,433,441	80,072	50,950	*29,122*	3 36	2.14	*1.18*
Sixth	2,256,249	2,277,913	2,288,051	21,664	31,802	10,138	.96	1.41	0 45
Seventh	2,029 736	2,052,825	2,187,119	23,089	157,383	134,294	1 14	7.75	6 54
Eighth	1,601,373	1,681,520	1,720,815	80,147	119,442	39,295	5 00	7.46	2.34
Total elementary	**21,278,593**	**21,135,420**	**20,765,037**	*143,173*	*513,556*	*370,383*	*.67*	*2.41*	*1.75*
First	1,626,823	1,177,608	1,855,026	150,785	228,203	77,418	9 27	14 02	4 36
Second	1,192,185	1,387,331	1,540,254	195,146	348,069	152,923	16 37	29 20	11.02
Third	879,525	1,066,755	1,209,180	187,230	329,655	142 425	21.29	37.48	13 35
Fourth	700,889	871,786	1,005,375	170,897	304,486	133,589	24 38	43.44	15.32
Postgraduate		36,541	59,321	36 541	59,321	22,780			38.40
Total secondary	**4,399,422**	**5,140,021**	**5,669,156**	**740,599**	**1,269,734**	**529,136**	**16.83**	**28.86**	**10.29**
Grand total	**25,678,015**	**26,275,441**	**26,434,193**	**597,426**	**756,178**	**158,752**	**2.33**	**2.94**	**.60**

[1] *From Statistics of State School Systems, 1933-34*, p. 8. United States Office of Education, Bulletin 1935, No. 2 (advance pages).
[2] Decreases are printed in italic type

New Mexico. Table I was prepared by the United States Office of Education and includes enrollment by states for 1930, 1932, and 1934. It also shows the percentage of increase or decrease from 1930 to 1932, from 1930 to 1934, and from 1932 to 1934. A list of the states showing decreased school enrollments can be compiled from an inspection of this table.[1]

Distribution of Enrollments. During the last decade the increases in the yearly enrollments in the public schools on the basis of actual numbers, as well as in terms of percentages, have been smaller than for many years preceding this period. This general situation in school enrollments reflects the declining birth rate and the longer average length of life.

Another view of the range and distribution of enrollments in the public elementary and secondary schools can be obtained by studying Table II. It is significant to note that although the total enrollment in the public and secondary schools has been increasing, there has been an actual decrease in the elementary schools up to and including the fourth grade for 1930–32 and 1930–34, and up to and including the fifth grade for 1932–34. This decrease in the elementary school enrollment for certain grades reflects the decrease in the percentage of our population found in the respective age groups for those school grades. This shift in the age groups of our total population is especially important for educators, sociologists, and other social leaders.

Rapid Increase in Enrollments. Something of the impressive expansion of enrollments in public elementary and secondary schools may be realized by an examination of Table III. An increase from 7,561,582 in 1870–71 to 26,434,193 in 1933–34 is an indication of the important place of public schools in the growth and development of the United States.[2]

[1] Determining the percentages of increase or decrease in enrollment in your own and neighboring states is a valuable exercise.

[2] The figures of the native state of the reader will be of special interest. A comparison of school enrollments with the total population figures of any state will reveal a much larger percentage of increase in school enrollments. The latest reports of the respective state departments of education will be of great help to the student wishing to increase his understanding of the public school development.

TABLE III

PUPILS ENROLLED IN PUBLIC ELEMENTARY AND SECONDARY SCHOOLS AT DIFFERENT DATES[1]

STATE OR OUTLYING PART	1870–71[2]	1879–80	1889–90	1899–1900	1909–10	1919–20	1929–30	1933–34
Continental U. S.	**7,561,582**	**9,867,595**	**12,722,631**	**15,503,110**	**17,813,882**	**21,578,316**	**25,678,015**	**26,434,193**
Alabama	141,312	179,490	301 615	376,423	424,611	569,940	622,988	648,981
Arizona		4,212	7,989	16,504	31,312	76,505	103,806	92,781
Arkansas	69,927	81,972	223,071	314,662	395,978	483,172	456,185	456,680
California	91,332	158,765	221,756	269,736	368,391	696,238	1,068,683	1,116,058
Colorado	4,357	22,119	65,490	117,555	168,798	220,232	240,482	238,808
Connecticut	113,588	119,694	126,505	155,228	190,353	261,463	319,453	327,225
Delaware	20,058	27,823	31,434	36,895	35,950	38,483	42,360	45,948
District of Columbia	15,157	26,439	36,906	46,519	55,774	65,298	80,965	94,112
Florida	14,000	39,315	92,472	108 874	148,089	225,160	346,434	382,510
Georgia	49,578	236,533	381,297	482,673	555,794	690,918	713,290	764,865
Idaho	906	5,834	14,311	36,669	76,168	115,192	120,947	118,346
Illinois	672,787	704,041	778,319	958,911	1,002,687	1,127,560	1,395,907	1,384,651
Indiana	450,057	511,283	512,955	564,807	531,459	566,288	667,379	696,513
Iowa	341,938	426,057	493,267	566,223	510,661	514,521	554,655	547,574
Kansas	89,777	231,434	399,322	389,582	398,746	406,880	431,166	421,510
Kentucky	178 457	[3] 276,000	399,660	500,294	494,863	535,332	588,354	609,684
Louisiana	57,639	77,642	120,253	196,169	263,617	354,079	434,557	461,607
Maine	152,600	149,827	139,676	130,918	144,278	137,681	154,455	166,747
Maryland	115,683	162,431	184,251	222,373	238,393	241,618	277,459	293,678
Massachusetts	273,661	306,777	371,492	474,891	535,869	623,586	759,492	793,847
Michigan	292,466	362,556	427,032	504,985	541,501	691,674	970,582	976,089
Minnesota	113,983	180,248	280,960	399,207	440,083	503,597	551,741	559,922
Mississippi	117,000	236,654	334,158	386,507	469,137	[3] 412,670	595,449	608,036
Missouri	330,070	482,986	620,314	719,817	707,817	672,483	656,073	719,588
Montana	1,657	4,270	16,980	39,430	66,141	126,576	120,337	117,566

Nebraska	23 265	92,549	240,300	288,227	[2] 281,375	311,821	325,216	316,756
Nevada	3,106	9,045	7,387	6,676	[2] 10 200	14,114	18,041	19,365
New Hampshire	71,957	64 341	59,813	65 688	63,972	64,205	74,240	77,753
New Jersey	169,430	204,961	234,072	322,575	429,797	594,780	792,012	827,435
New Mexico	1,320	4,755	18,215	36,735	56,304	81,399	102,084	92,449
New York	1,028 110	1,031,593	1,042,160	1 209 574	1,422,969	1,719,841	2,141,479	2,296,868
North Carolina	115,000	252,612	322,533	400,452	520,404	691,249	866,939	895,525
North Dakota	1,660	13,718	35 543	77,686	139,802	168,283	169,277	160,699
Ohio	719,372	729,499	797,489	829,160	838,080	1,020 663	1,277,636	1,300,037
Oklahoma	..			99,602	422,399	589,282	682,650	623,497
Oregon	21,000	37,533	63,254	89,405	118,412	151,028	202,595	201,556
Pennsylvania	834,614	937,310	1 020 522	1,151,880	1,282,965	1,610,459	1,937,433	2,031,606
Rhode Island	34,000	40,604	52 774	67,231	80,061	93,501	118,704	124,474
South Carolina	66,056	134,072	201,260	281,891	340 415	478,045	469,370	486,712
South Dakota	[3]	[3]	78,043	98,822	126,253	146,955	165,624	159,956
Tennessee	140,000	300,217	447,950	485,354	521,753	619,852	627,747	655,307
Texas	63,504	[2] 220 000	466,872	659,598	821,631	1,035,648	1,308,028	1,311,662
Utah	16,992	24,326	37,279	73,042	91,611	117,406	138,046	142,797
Vermont	65,384	75,328	65,608	65,964	66,615	61,785	65,976	66,176
Virginia	131,088	220,736	342,269	370,595	402,109	505,190	562,956	585,657
Washington	5 000	14,780	55,964	115 104	215,688	291,053	344,731	340,742
West Virginia	76,999	142,850	193,064	232,343	276,458	346,256	395,505	434,864
Wisconsin	265,285	299,457	351,723	445,142	464,311	465,243	564,022	583,133
Wyoming	450	2,907	7,052	14,512	24,584	43,112	54,505	55,841
Outlying Parts								
Alaska						3,360	3,436	5,519
American Samoa								2,186
Canal Zone						3,486	7,003	7,298
Guam							3,683	4,085
Hawaii						41,350	71,657	81,240
Philippine Islands						935,678	1,121,233	1,179,032
Puerto Rico						180,458	221,248	239,495
Virgin Islands							3,061	3,519

[1] *Statistics of State School Systems, 1933–34*, p 49 United States Office of Education, Bulletin 1935, No. 2 (advance pages).
[2] Estimated. [3] Included in North Dakota

Increased High School Enrollment. One of the striking facts in a study of the enrollment in elementary and high schools during the last three decades is the rapidly increasing percentage of enrollment in the secondary schools. In 1934 a total of 21.4 per cent of the total enrollment in elementary and high schools was found in the high schools. The rapid growth in high school enrollment is clearly indicated by the fact that in 1900 only 3.3 per cent of the total school enrollment was in high school. Figure 2 represents the percentage of total enrollment in high schools by states for 1933–34.[1]

The states having 25 per cent or more of their total enrollment in high school are Wisconsin, Washington, Utah, Massachusetts, Montana, Oregon, New York, California, Idaho, Indiana, and Wyoming. The states having less than 15 per cent of their total enrollment in high school are Kentucky, New Mexico, Tennessee, Georgia, South Carolina, Arkansas, Alabama, and Mississippi.[2]

Teachers

Another view of the immense size of the public education program may be obtained by looking at the number of the teaching personnel. The total number of elementary and secondary school teachers in continental United States in 1934, according to the figures secured by the United States Office of Education, was 847,120.[3] Including teachers in the private schools, the number for 1936–37 was estimated at 1,050,000.[4] This large army of teachers is several times the size of the total group in any other of the recognized professions.

The ratio of men to women among the total number of teachers was approximately 1 to 5. In 1934, 161,949 or 19.1 per cent were

[1] From *Statistics of State School Systems, 1933–34*, p 6 United States Office of Education, Bulletin 1935, No. 2 (advance pages).

[2] *Ibid.*, p. 9. Students of education should wish to see how their states and neighboring states rank with respect to total enrollment in the high schools as compared with total enrollment in the elementary and high schools.

[3] *Ibid.*, pp. 14–15.

[4] *March of Education.* United States Office of Education, News Letter No. 11, November, 1936.

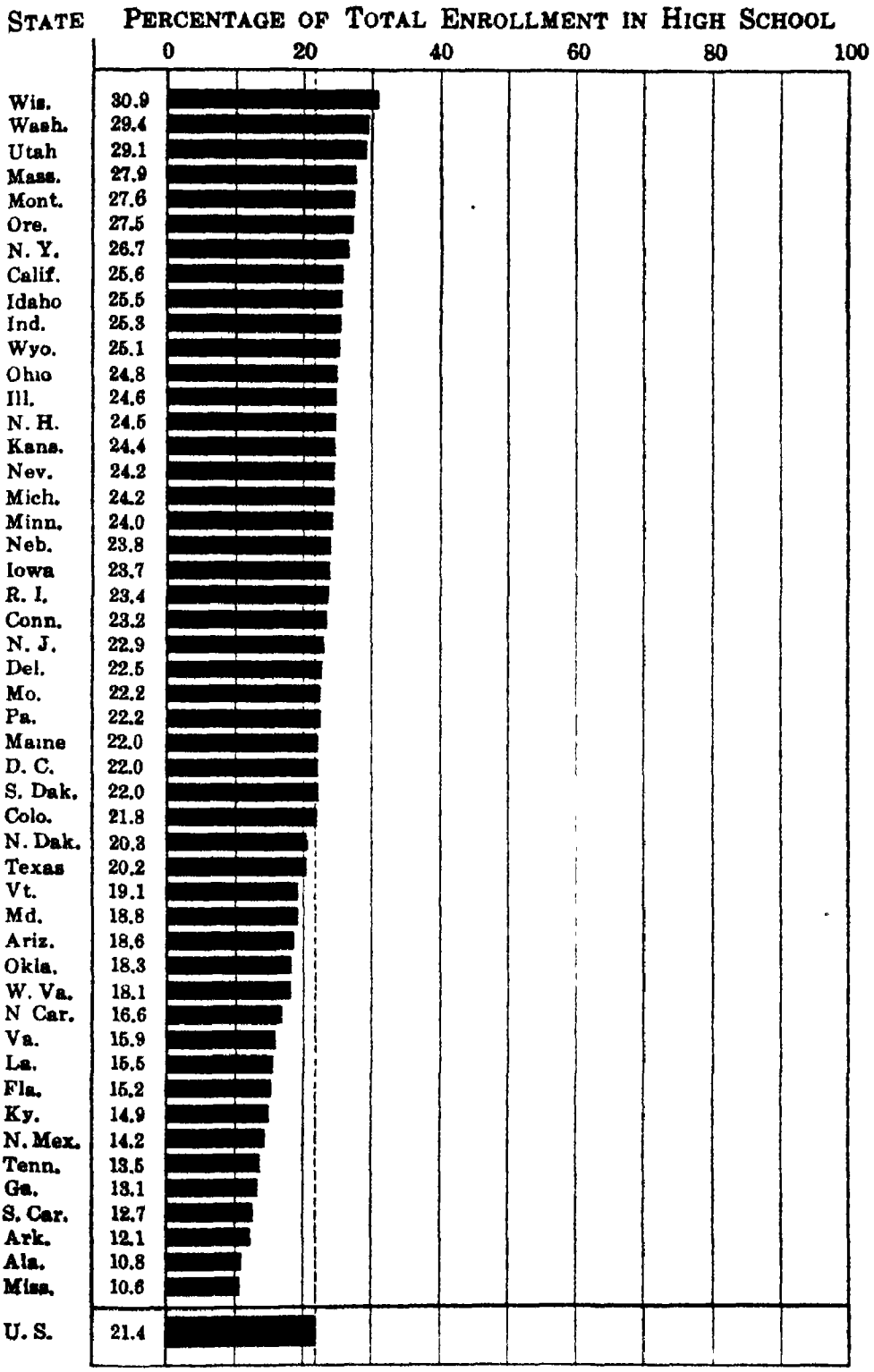


FIG. 2. HIGH SCHOOL ENROLLMENT, 1933–34

men and 685,171 or 80.9 per cent were women. The range in the proportion of men teachers in the different states was from 10.9 per cent in Vermont to 30.2 per cent in West Virginia. It is significant that the proportion of men teachers has increased steadily since 1920.

Salaries of Teachers, Principals, and Supervisors. The figures collected by the United States Office of Education show that the average annual salary of teachers, principals, and supervisors combined in 1934 was $1,227. On account of the economic depression which started in 1929, the average salary was $190 less in 1934 than in 1932, and $193 less in 1934 than in 1930. The wide range in the average annual salaries in the different states is presented in Figure 3.[1]

Since the states do not all report expenditures for salary by type of school organization, the average salaries for the country as a whole according to the type of school unit are not available. In twenty-two states, however, reporting the elementary school salaries, the average ranged from $402 in Arkansas to $1,866 in the District of Columbia. In nine states reporting junior high school salaries, the average ranged from $746 in Arkansas to $1,951 in New Jersey. In nineteen reports on the regular four-year high school salaries, the range was from $570 in Arkansas to $2,438 in the District of Columbia.

On the whole, the increase in salaries during the last twenty-five years, especially in the junior and senior high schools, gives much encouragement to the common hope of educators that teaching will soon be compensated in salaries somewhat approximating the level of a recognized profession. The lower average salary for the elementary school may be attributed in part to the lower average of professional preparation among elementary school teachers. Many school systems now have salary schedules giving the same or approximately the same salary for teachers of equivalent preparation and experience in the elementary, junior high, or senior high unit. The college students who are prospective teachers

[1] From *Statistics of State School Systems, 1933–34*, p. 24. United States Office of Education, Bulletin 1935, No. 2 (advance pages).

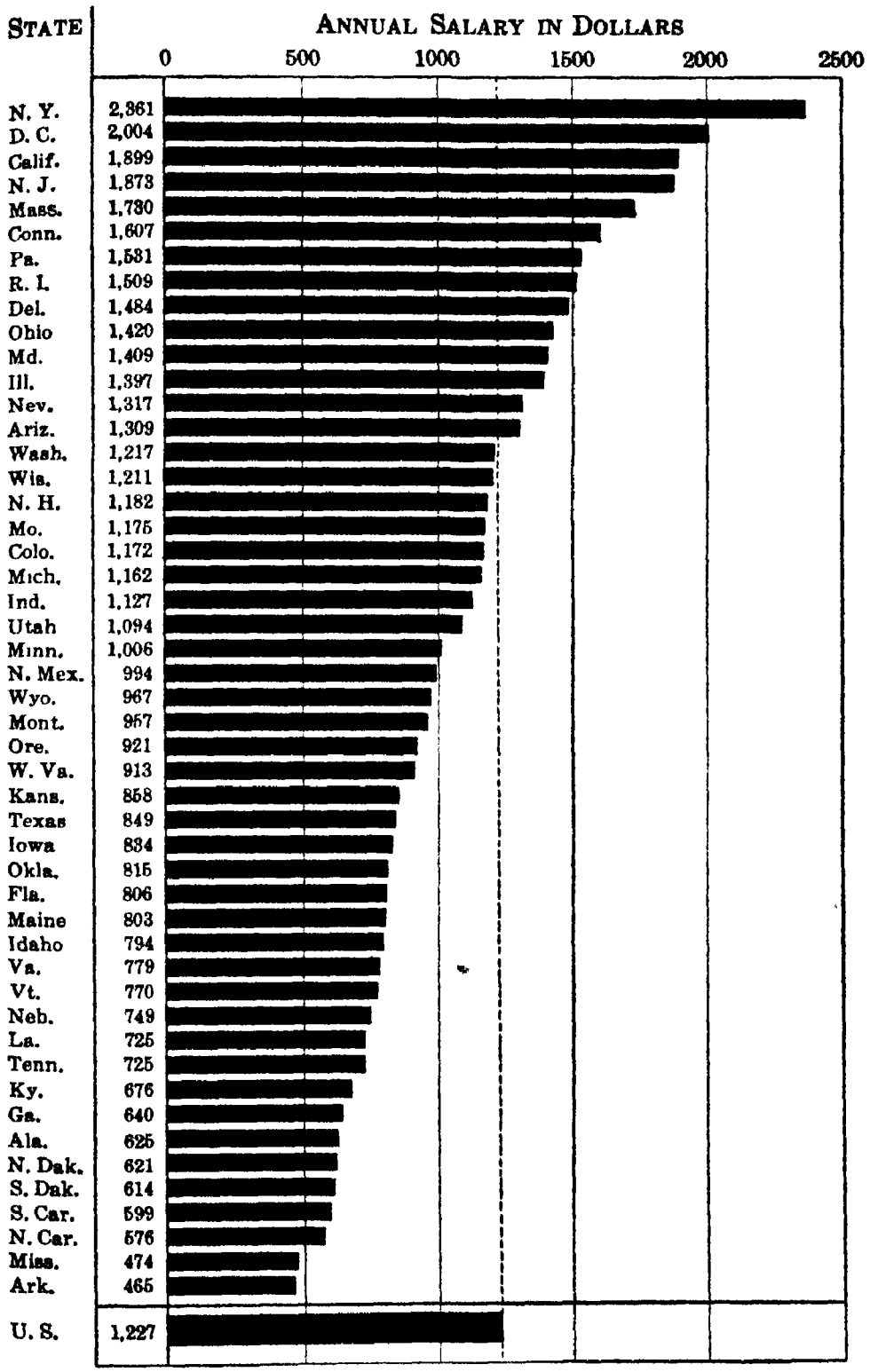


FIG. 3. AVERAGE ANNUAL SALARIES, 1933–34

today should understand clearly the present trend to make salary schedules in accordance with the amount of professional preparation and successful experience. To enter the teaching profession with the minimum of educational preparation required for certification is to invite a period of low salaries.

Adult Education

Any attempt to obtain a brief but somewhat comprehensive view of education in the United States would be quite incomplete without some attention to adult education. In Chapter III this phase of education was considered under the general problem of education and the school community. Public elementary and secondary schools frequently conduct classes or other educational activities for adults. The scope of such service ranges all the way from classes to remove illiteracy to classes in the newer and most popular forms of recreation.

The rapid changes in the social and economic society today, the democratic ideal of the right of the individual to promote his own welfare by improving his position in society and adding to his personal joy of living, and our somewhat recent studies, which reveal that adults may learn almost as readily as youth, will certainly contribute to the development of adult education as a part of our future public educational program. Such a program indeed is a continuation of the democratization of social relationships. It is another avenue leading toward the fulfillment of "the American dream."

Adult education today is carried on by a great variety of institutions outside the public school system. The extension and correspondence divisions of various colleges and universities contribute much to this field of service. The Chautauqua, lyceum, correspondence school, Young Men's Christian Association, Young Women's Christian Association, Young Men's Hebrew Association, Young Women's Hebrew Association, Knights of Columbus, public libraries, and other similar institutions, carry forward valuable programs of adult education. In response to the demand

for opportunities for adults, a long list of private institutions has been established of which the correspondence school and the specialized vocational school are examples. Instruction on almost every level and in practically every field may be found in private institutions.

Since adults have shown a willingness to pay private institutions for such instruction, it seems reasonable to expect that there will be an increase in demand upon the public school systems to provide more and more of such opportunities. In line with the current tendencies for adult education, most of the states have enacted laws, somewhat recently, to promote adult education in some form, such as citizenship classes, classes to remove illiteracy, college and university extension service, and correspondence courses. During the first administration of President Franklin D. Roosevelt a significant aspect of the program of Federal spending to meet the relief problem during the economic depression included much emphasis upon adult education carried forward by unemployed teachers. Other significant educational activities of the Federal Government during the same period included the assistance given to youths in high school and college by the National Youth Administration and the educational program which evolved rapidly for the Civilian Conservation Camps. The establishment of emergency junior colleges was another Federal activity with important educational implications for the future.

It is entirely in agreement with the principles of our democracy that the citizens and voters should develop an appreciation and an understanding of governmental institutions and citizenship obligations. The continued progress of the ideals of the American democracy depends upon an enlightened public opinion and a mutual understanding toward which the adult education program of the public school system can contribute very largely. To instruct parents with regard to the best methods of rearing their children would seem to be a clear example of the need and opportunity for adult education to be promoted by a system of free public education. Adult education on a broad basis will most likely receive increasing emphasis in the public school program.

Vocational Education

A recognition of the need for some type of vocational education has increased continually from the days of the Latin grammar school. Some of the more practical subjects applicable to the duties of everyday life were found in the early academies. The story of the development of the curriculum in the public high schools shows a continual increase in the number of courses which might be considered vocational. The expansion and development of vocational courses, from the accounting in the earlier academies and the typewriting in public high schools to the specialized courses to be found in many high schools, such as the Brooklyn Technical High School or the Textile High School in New York City, is an interesting story of a major development in secondary education.

The use of the term "vocational education" is ordinarily confined to preparation for non-professional callings. As the term is generally employed, it includes any systematic instruction which prepares individuals for a gainful occupation. Like so many other phases in the development of the American educational program, vocational education was started chiefly by private educational institutions. Such private institutions merely responded to the needs of society by rendering a type of service which was not usually made available by the public school system. The rapid development of commercial schools or "business colleges" in this country is a good example of a type of service in vocational education which was largely accepted at a later date as a service to be given by the high schools and colleges.

With an ever increasing percentage of boys and girls of high school age attending our secondary schools, the need for varied opportunities for vocational education becomes more and more urgent. Instead of continuing their educational activities in college, a vast majority of the boys and girls attending high school leave this school to enter immediately upon gainful employment. The rapid changes and developments in an industrial society give support to the demand that the public school system so adapt

its program as to recognize the needs of the vast majority of its pupils. The apprenticeship system, which was so common in early New England life, has been greatly modified to meet the needs of our machine age. In many occupations employers give preference to applicants for positions demanding certain preliminary training that can be most economically secured before starting upon the duties of the actual job. It still remains true, however, that much of the fundamental training must be obtained under the conditions of actual employment.

Although the need for various types of vocational education on the secondary school level was apparent and many private schools developed to serve the increasing demand for such training, little significant progress in the public schools was made in vocational education before the Federal Vocational Education Act of 1917. The Smith-Hughes Act of 1917 created a Federal Board of Vocational Education and authorized Federal appropriations for vocational education. This act, and several subsequent acts by Congress, provided for appropriations to promote the vocational rehabilitation of disabled civilians, for coöperation with the various states in the promotion of special education for agriculture, the trades, and industry, and for the preparation of teachers of vocational subjects. These Congressional appropriations have generally required the appropriation of state money to supplement the Federal funds.

The most recent vocational measure by Congress was the George-Dean Act in 1936 making available more than twice the amount of former Federal appropriations to the states for vocational education. This act also reduces the percentage of state and local funds necessary to be expended in order to obtain Federal funds. The effect of this recent Congressional legislation should open up wider opportunities for vocational education in the public schools.

Although certain objections have frequently been raised against the support of one special phase of the educational program and the creation of special machinery for this one aspect of education which may exert an undue influence over the entire educational program, the development of vocational education has depended

very largely upon the stimulus of the Congressional appropriations. The teachers of vocational agriculture and home economics are now found in a large percentage of the small rural high schools in the United States.

Private Education

The development of education in the United States from an organization which was largely private in support to the present public school system extending from the nursery school to the university has been described. It is important to emphasize, however, that not all educational services have passed over to the public school system. A relatively large percentage of educational institutions for higher education remain private institutions rather than state colleges or universities.

An important, even though a relatively small, percentage of boys and girls attend private elementary and secondary schools. So far in our country the democratic ideals have not been interpreted to mean that all children shall attend the public school. Court decisions have upheld the rights of parents to meet the compulsory school attendance requirements by sending their children to private schools over which the state exercises only a very general and nominal type of control.

According to the figures collected by the United States Office of Education, the number of teachers employed in the private and parochial schools on the elementary and secondary school level for 1933–34 was 72,192. In the elementary private and parochial schools was an enrollment of 2,330,941 pupils. On the secondary level in the same group of schools were enrolled 360,092 pupils, making a total of 2,691,033 pupils on the elementary and secondary levels in private and parochial schools. The total enrollment in the public elementary and secondary schools for the same school year was 26,434,193. A little more than 10 per cent of the total enrollment in elementary and high schools is thus found in private schools. The most rapid growth in non-public schools is found in the parochial school group.

Private schools frequently attempt to provide forms of specialized

service not available in the public school system. Such schools are also frequently used as centers for educational experimentation. Many parents send their children to private schools because of the belief that they will secure additional advantages in such schools.

The development of private schools with a religious motive has been especially significant. The Roman Catholic parochial schools, both elementary and secondary, constitute the largest single group of non-public schools. In addition to the general aims of the public school system, such schools include specific religious training. Most of the religious groups in the United States support some type of educational institutions.

The chief source of financial support for private schools is found in tuition fees. To a large extent the private schools are somewhat selective on an economic basis. Certain religious schools, however, have relatively low tuition costs because the teaching service is given largely as a religious duty rather than on the basis of a self-supporting vocation. Nominal tuition charges are also maintained in many private institutions having large gifts and endowments.

The question about the development of special interests and attitudes by private schools within certain groups of our population is frequently raised by those who believe that all children should attend the public school system. Some claim that there is a possibility of failing to develop definite common national ideals if a proportion of the children attend private schools. The right of the parents to send their children to private schools, however, has become firmly established by law and judicial decisions.

In 1923 a state constitutional amendment was ratified in Oregon which compelled parents to send children to the public elementary schools. The Federal courts held that this amendment was in conflict with the Constitution of the United States and, therefore, null and void. The Fourteenth Amendment to the Constitution of the United States has been the basis for several court decisions regarding the rights of the state in education. It provides that "No state shall . . . deprive any person of life, liberty, or property, without due process of law." The right to attend a private school

which meets the minimum educational requirements of the state has been interpreted to be within the exercise of reasonable liberty.

The questions about allocating public funds for the support of private schools and the option of paying taxes for the support of public schools or contributing like sums to the support of private schools are not completely dormant. Within recent years these questions have been before some of the state legislatures. In most of the states constitutional provisions prohibit the appropriation of any public money for the support of institutions offering sectarian religious instruction.

The exact nature of the supervision which the state may exercise over private schools is largely undefined. In some states the relationships between the state and private schools has been partly determined by law. Judicial decisions have covered only a portion of the possible points of disagreement. The courts, however, have not denied the state the power to establish certain minimum regulations covering the curriculum, the health provisions, and the equipment. Some of the states enforce minimum qualifications of teachers for private schools. Two rather common trends are the making of statistical reports to state authorities by private schools and the inclusion of certain subjects or materials in the curriculum of private schools as prescribed by the state.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. What were a few specific ways in which the religious influence of early New England affected the first schools in this country?
2. Give examples of definite demands made upon the early colonial schools as a result of the expanding social and economic conditions.
3. Discuss briefly some important factors which influenced the development of the practice of supporting schools from public funds.
4. How have democratic ideals affected the public school system of our country?
5. Why can it be claimed that in the United States we do not have a true national system of public education?
6. Describe briefly several educational activities in which the Federal Government has engaged or which it has helped to support.

7. What do you consider the best arguments for and against the direct support of all or a part of the public school system by the national government?
8. Make a list of several publications prepared by the United States Office of Education which are available in your college library and helpful in your present courses in education.
9. How many of the types of schools named in this chapter are found in your local school district and in your county?
10. What are the enrollments in the different types of schools in your state according to the latest reports from your state department of education?
11. What are the total enrollments in the different types of schools in our country according to the latest reports from the United States Office of Education?
12. How do you interpret the significance of a few of the enrollment trends in the schools of your state and of the United States?
13. Collect figures on the rapid increase of school enrollments which you think would impress the average taxpayer in your community
14. How many teachers are now employed in each of the units of school organization in your local school district, county, and state?
15. What do you believe are some of the chief reasons for the increasing proportion of men teachers?
16. According to the best information which you can obtain, how do the beginning and maximum salaries of teachers in your county or state compare with the beginning and maximum salaries of other professions?
17. Prepare a list of the agencies for adult education now active in your community
18. Do you believe that the budget for the public school system should include items for adult education? Defend your position.
19. What are some specific ways in which you believe that the schools in your community could promote adult education activities?
20. Do you believe that the adult education program most likely to contribute the maximum benefit to your community should be supported by tuition fees? Explain your position as you would to an interested taxpayer.
21. What are the specific opportunities for vocational education for boys and girls in high school, or just graduated from high school,

which may be found in your community? What are some of the additional needs for vocational education in your community?

22. What vocational courses and opportunities are now found in the high schools in your county on account of available Federal and state funds?
23. From your point of view what are some of the chief advantages and disadvantages of private schools on the elementary and secondary school levels?
24. Do you believe that the state should exercise any considerable degree of supervision over the curriculum of private elementary and secondary schools? Explain and defend your position.
25. Is it reasonable and right to require parents who send their children to private schools to pay their share of taxes to support good public schools? Should we expect the parents of children attending private schools to support school improvements and higher salaries for teachers?

SELECTED REFERENCES FOR FURTHER READING

Luther W. Abele, "The School and the Family Welfare Agency," *School Review*, Vol. XLIV (February, 1936), pp. 109–113.

Lewis R. Alderman, "The Emergency Educational Program," *School Life*, Vol. XIX (June, 1934), pp. 216–217.

American Country Life Association, *Adult Education and Rural Life*. University of Chicago Press, 1933.

Thomas H Briggs, *Secondary Education*, Chs. IV–VI. Macmillan, 1933.

Lyman Bryson, *Adult Education*. American Book Company, 1936.

Macy Campbell, *Rural Life at the Crossroads*. Ginn, 1927

William W. Carpenter and John Rufi, *The Teacher and Secondary School Administration*, Chs. X–XI, XIV. Ginn, 1931.

Morse H. Cartwright, *Ten Years of Adult Education*. McGraw-Hill, 1935.

Leo M. Chamberlain, *The Teacher and School Organization*, Chs. I–II. Prentice-Hall, 1936.

William A. Cook, *Federal and State School Administration*. Crowell, 1927.

George S. Counts and others, *The Social Foundations of Education* (Part IX of the report of the American Historical Association Commission on the Social Studies), Part I, Ch. I; Part II, Ch. V; Part III, Ch. III. Scribner, 1934.

Leonard Covello, "A High School and Its Immigrant Community — A Challenge and an Opportunity," *Journal of Educational Sociology*, Vol. IX (February, 1936), pp. 331–346.

Philip W. L. Cox and R. Emerson Langfitt, *High School Administration and Supervision*, Ch. XXXI. American Book Company, 1934.

Ellwood P. Cubberley, *Readings in Public Education in the United States*, Chs. XVII, XIX, XXII–XXIII. Houghton Mifflin, 1934.

—— *State School Administration*, Chs. I–IV, XVIII. Houghton Mifflin, 1927.

Wilson S. Dakin, "Education through School and Community Co-operation," *Junior-Senior High School Clearing House*, Vol. X (September, 1935), pp. 12–14.

Isaac Doughton, *Modern Public Education*, Ch. XII. Appleton-Century, 1935

Aubrey A. Douglass, *The American School System*, Chs. XII–XIII, XV. Farrar and Rinehart, 1934.

Dorothy C. Fisher, *Why Stop Learning?* Harcourt, Brace, 1927.

Frank P. Graves, *The Administration of American Education*, Ch. XXVI. Macmillan, 1932.

Alfred L. Hall-Quest, *The University Afield* Macmillan, 1926.

Joseph K. Hart, *Adult Education*. Crowell, 1927.

L. R. Johnston, "High Schools as Community Educational Centers," *Junior-Senior High School Clearing House*, Vol. VIII (April, 1934), pp. 497–499.

Charles H. Judd, *Problems of Education in the United States*, Chs. II, V, VII. McGraw-Hill, 1933.

—— *The Evolution of a Democratic School System*. Houghton Mifflin, 1918.

—— *The Unique Character of American Secondary Education*. Harvard University Press, 1928.

Isaac L. Kandel, *Comparative Education*, pp. 76-82, 188–206, 313–348. Houghton Mifflin, 1933.

Ward W. Keesecker, *Digest of Legislation Providing Federal Subsidies for Education*. United States Office of Education, Bulletin 1930, No. 8.

Fred J. Kelly and John H. McNeely, *The State and Higher Education*. Carnegie Foundation for the Advancement of Teaching, 1933.

John H. Kolb and Edmund deS. Brunner, *A Study of Rural Society*, Chs. XVI, XVIII. Houghton Mifflin, 1935.

Benson Y. Landis and John Willard, *Rural Adult Education.* Macmillan, 1933.

R. Emerson Langfitt, Frank W. Cyr, and N. William Newsom, *The Small High School at Work*, Chs. I–II, XVII–XVIII. American Book Company, 1936.

Edith A. Lathrop, *A Study of Rural School Library Practices and Services.* American Library Association, 1934.

Edwin S. Lide, *Constitutional Basis of Public School Education.* United States Office of Education, Leaflet No. 40, 1931.

John Mathiason Matzen, *State Constitutional Provisions for Education.* Teachers College, Columbia University, 1931.

Arthur B. Mays, *An Introduction to Vocational Education.* Century, 1930.

J. Franklin Messenger, *An Interpretative History of Education*, Chs. XXI–XXII. Crowell, 1931.

National Education Association, Department of Superintendence, Seventh Yearbook (1929). *The Articulation of the Units of American Education*, Ch. XXVII.

National Society for the Study of Education, Thirtieth Yearbook (1931), Part I: *The Status of Rural Education*

John S. Noffsinger, *Correspondence Schools, Lyceums, Chautauquas.* Macmillan, 1926.

Howard W. Oxley, "Building a Model Camp Program (C.C.C. camp education)," *School Life*, Vol. XXII (November, 1936), pp. 80–81.

S. Howard Patterson, Ernest A. Choate, and Edmund deS Brunner, *The School in American Society*, Chs. VII–VIII, XV–XVII International Textbook Company, 1936.

Elizabeth R. Pendry and Hugh Hartshorne, *Organizations for Youth.* McGraw-Hill, 1935.

Edward H. Reisner, *The Evolution of the Common School.* Macmillan, 1930.

Charles L. Robbins, *The Small Town and Its School.* University of Iowa, College of Education Series, No. 33, 1934.

Tenjes H. Schutte (Ed.), *Orientation in Education*, Chs. XVI–XVII, XX. Macmillan, 1932.

William P. Sears, *The Roots of Vocational Education.* Wiley, 1931.

Statistics of Private Commercial and Business Schools, 1932–33. United States Office of Education, Bulletin 1935, No. 2 (advance pages).

Statistics of State School Systems, 1933–34. United States Office of Education, Bulletin 1935, No. 2 (advance pages).

F. Theodore Struck, *Foundations of Industrial Education.* Wiley, 1930.

John W. Studebaker, *Safeguarding Democracy through Adult Civic Education.* United States Office of Education, Bulletin 1936, No. 6.

—— and C S. Williams, *Education for Democracy — Public Affairs Forums.* United States Office of Education, Bulletin 1935, No. 17.

H. B. Swanson, *Youth — Education for Those Out of School.* United States Office of Education, Bulletin 1936, No. 18.

Edward L. Thorndike, *Adult Learning.* Macmillan, 1928.

United States Office of Education, *The Office of Education: Duties, Work, History, Publications.* An unnumbered pamphlet distributed free by the United States Office of Education, Washington, D.C.

Lester M. Wilson and Isaac L Kandel, *Introduction to the Study of American Education*, Chs. II, XII–XIV. Nelson, 1934.

CHAPTER VII

THE FORMS AND FUNCTIONS OF AMERICAN SCHOOLS

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Functions of Schools

One fundamental point of view toward our system of public education is that schools are supported or controlled by the state for the benefit of society. The general welfare of the community, state, and nation is advanced by providing educational opportunities to develop the socially desirable attitudes, habits, appreciations, skills, and knowledges of the individual citizens. The higher the type of civilization, the more urgent becomes the demand for extended educational advantages.

In a primitive society the youths learn the socially approved ways of acting from observation and direct participation in the group life. The boy in the savage tribe will learn to obtain food in the chase by participating with and learning from his elders. The girl will learn the ways to make clothing and to prepare food directly from her experience in assisting the women with such work. Thus they learn from daily experience the ways of living necessary to continue the life of the tribe. Under such conditions the need for formal education and specialized institutions or schools is not recognized.

In a modern industrial society the more limited home environment and the highly specialized work of adults do not permit the youths to learn all the essential habits, attitudes, skills, and knowledges in the home life or from directly assisting their parents and elders in the actual work of the day. Although the youths

continue to learn largely from their direct experiences in life, from the home and the community, it becomes increasingly important that a specialized institution of society, called the school, supplement the learning activities. Without such a specialized institution many of the essentials for the continuance and improvement of society would be lost. Formal education in a civilized society must not be regarded as charity, but rather as a necessary investment for the very life of society and for its continued improvement.

Any system of education supported or controlled by the state must have as its ultimate goal the welfare of the state. Such a conception of the major function of the school system does not mean, however, that the development and welfare of the individual is of subordinate or secondary importance. Society is composed of individuals. The development of the ability of the individual means a greater contribution to the life of the group. The good of the individual, in truth, becomes the good of the group. Only when the individual abilities and capacities are developed for antisocial acts, attitudes, or habits can the education of the individual be considered in conflict with the welfare of society. Kipling has aptly expressed this interdependence of the individual and the group in the following words:

> Now this is the Law of the Jungle —
> as old and as true as the sky;
> And the Wolf that shall keep it may prosper,
> but the Wolf that shall break it must die.
>
> As the Creeper that girdles the tree-trunk
> the Law runneth forward and back —
> For the strength of the Pack is the Wolf,
> and the strength of the Wolf is the Pack.[1]

The Kind of Society Determines Functions. Just as education for youths in a primitive society has its source in, and receives its direction from, the life activities of the group, so the school as

[1] From "The Law of the Jungle," in *Second Jungle Book*, by Rudyard Kipling, copyright, 1895, 1923 Reprinted by permission from Doubleday, Doran and Company, Inc., and Mrs. Rudyard Kipling.

a social institution of a civilized society grows its taproot in the civilization of which it is a part. A proper conception of education relates it directly to all aspects of the general cultural order. A system of education can be evaluated only when it is considered in the light of the purposes and ideals of the society in which it is located and which it serves. In general, the functions of the school in any society are derived from the purposes and ideals of that society. Thus the functions and materials of a school system for a backward civilization of some society on a Pacific island should be quite different from a school system for the apartment house dwellers in a large American city.

National Purposes and Ideals. In addition to the transmission of the social heritage necessary for the perpetuation of the state, there is always the need for education for citizenship as approved by the ideals and purposes of the state. The school system is frequently used as an instrument to advance national purposes. When the purposes of the state are communist, fascist, or democratic, the school system must inevitably reflect such ideals and contribute to their perpetuation. Dictators are usually quick to make their national school systems instruments for supporting the development of the organization of society which they desire. To find several examples of a changing function of a school system, it is necessary only to look at the stages in the social and political purposes of several of the chief nations of the world since the end of the World War.

School Not the Only Educational Institution. As a social institution the school in any society is only one of many institutions which may be considered educational. In the broad sense of the term, any social institution which affects the lives of the members of the society is an educational institution. In Chapter IV, many types of social institutions rendering educational service were described. The school is the social institution usually considered first among educational institutions because it was created for the specific purpose of providing the types of formal education which are not readily obtained or cannot be secured from other social institutions. The school prepares individuals for a more

effective life in the various social groups. It supplements other educational institutions in the community; and its aims, functions, and activities must never be considered as separate from the life of society as expressed in other social institutions.

In any but a static type of society the function of the school does not end with the transmission of the social heritage and the perpetuation of the existing forms. The service of the school should include a contribution to social advancement. Some enthusiastic educators would have the school predetermine the desired form of society and indoctrinate all youths to bring about the new social order. Such thinking overlooks the fundamental fact that the school is a social institution and that the general purposes and aims of the supporting society will determine the limits of the leadership and teachings of the school.

As a social institution the school should contribute to social progress; but, as only one of the social institutions of society, it cannot alone determine the goals of society. To attempt to promote, in any marked degree, social organizations which are disapproved by society would be a futile undertaking and disastrous to the school. The larger social objectives of any society must be accepted by that society before they can be promulgated rapidly by the schools.

In practice, there is usually a regrettable social lag between the aims and activities of the schools and the progress of society in general. A constant aim of the schools should be to reduce the gap between school life and the life of the changing society. To a very large degree it is still true that "Time makes ancient good uncouth."

School Functions in a Democracy. The aims and functions of a public school system in a democracy may be inferred in a general way from the discussion of the last few pages. The transmission of the social inheritance of the existing democratic society and the training for good citizenship under a democratic organization of society seem to be implicit in the very nature of the social organization. Other aims and functions compatible with the democratic ideals might be compiled in large numbers. In our

democratic society the basic aims and objectives of education provide for the greatest good for all. It does not follow, however, that the same education should be given to all. The development of the individual interests, capacities, and aptitudes valuable in a democratic society must be one of the general aims of all education.

The American school system is maintained for and by the general public. According to democratic ideals its function is to serve society by serving each individual according to his abilities and needs. The ideal of the service of the school to society as a whole is reflected in the compulsory attendance laws, and in using the taxing power of the state to make the wealth of the state educate all the children. The function of the school is not merely to select and educate those children who seem best adapted to the requirements of a formal or traditional education, but to discover whatever abilities each individual may possess and to cultivate those abilities for the good of the individual and of society. Compulsory education laws do not permit the American school to dismiss pupils for lack of ability. To discover individual aptitudes and abilities is one of the cardinal functions of the public school.

Selected Statements of Functions. As emphasized in the preceding discussion, it is necessary to examine the aims and purposes of American society if we are to understand the basis of the aims and functions of the public school system. One of the best known statements of the aims of the political organization of our society is found in the preamble to the Constitution of the United States. "To form a more perfect union, establish justice, insure domestic tranquillity, provide for the common defense, promote the general welfare, and secure the blessings of liberty" are some of the broad aims of the society which the school must serve.

A recent report of the Committee on Articulation and Integration of the New York City public school system stated that:

> Education in a democracy seeks to effect the actualization of the potentialities of each individual in consonance with and for the development of a continuously progressive society.[1]

[1] Published for limited distribution by the Board of Education, New York City, 1935.

The same committee has the following to say about the objectives and functions of public education:

This pattern of education will promote the individual's vital, vocational, avocational, civic, social, and moral efficiency, through the acquisition of the necessary knowledge, the development of requisite habits and skills, and the evolution of proper ideals and attitudes.[1]

The following extracts from a report of a commission of the Carnegie Foundation for the Advancement of Teaching state clearly two of the generally accepted functions of the common school system:

The First Function of the Common-School System — It is the primary and fundamental function of the common-school system, extending from the earliest years of schooling, through kindergarten, elementary school, junior and senior high school, and the junior college, to educate the citizen for effective participation in all those common understandings and coöperations which are necessary to sustain the best in our complex contemporaneous civilization which is American.

Our common schools must be dedicated primarily to educating men and women so that they may work and live together more successfully in and through the institutions of a civilization that must be constantly adapted to changing conditions. Failure of citizens to understand many of our current problems and their tragic inability to coöperate in the solution of them constitute one cause that has led to breakdowns in our current civilization that must be constantly adapted to changing conditions.

A common-school system rededicated to the original social purposes which warranted tax support by all the citizens of the state *must aim mainly at the fullest possible development of a social rather than a selfish personality*. It will seek to develop an enlightened citizenship, rather than an enlightened selfishness. Much of the current criticism of the behavior of citizens as the product of schools is based on the fact that the common schools above the elementary school are not really utilized by the student or fully managed by teachers and administrators for this fundamental civilizing purpose. . . .

In the first place, *secondary education will be not less intellectual but more social and adaptive*. It will be directed toward giving the student an understanding of the natural and social world in which he lives.

[1] *Ibid.*

The mastery of the academic letters, arts, and sciences will be no longer the end of his school mastery, but the educational means of understanding life. . . .

In the second place, *secondary education will focus its attention more steadily on the contemporaneous life*, with its oncoming problems. The lag between what the school teaches and what present and impending citizenship requires will be decreased. . . .

Thirdly, *schooling will not be thought of as practically the end of education or learning*, now too commonly and so fatally the case. Education will be regarded as a continuous process, coterminous with life, to which schools merely give impetus for further and continuous personal inquiry and growth. An education at school will be regarded as preparatory to continuous adult learning. . . .

The Second Function of the Common-School System — It is a second and equally important function of the educational system to prepare young people for productive living. Insofar as the individual differences of students — intellectual, social, economic — warrant, this end will be accomplished through occupational training of different types.

The most significant body of psychological fact concerning human nature that has recently influenced our thinking or our action is that which reveals the astounding range of individual differences in social or school population. People are not all alike. To believe they are and to treat them as though they were is to commit a grave human injustice to many individuals, and to deprive society of the use of their full powers. . . .[1]

The Commission on Secondary Education of the National Education Association in 1918 gave us the following statements regarding education and democracy:

The purpose of democracy is so to organize society that each member may develop his personality primarily through activities designed for the well-being of his fellow members and of society as a whole. . . .

Consequently, education in a democracy, both within and without the school, should develop in each individual this knowledge, interests, ideals, habits, and powers whereby he will find his place and use that place to shape both himself and society toward ever nobler ends.[2]

[1] "The Functions of the Educational System," quoted from *Journal of the National Education Association*, Vol. XXII (January, 1933), pp. 31–32.

[2] *Cardinal Principles of Secondary Education*, p. 9. United States Office of Education, Bulletin 1918, No. 35.

A statement of objectives that is broad and comprehensive was made by a curriculum commission of the Department of Superintendence of the National Education Association in 1928:

1. To promote the development of an understanding and an adequate evaluation of the self.

2. To promote the development of an understanding and an appreciation of the world of nature.

3. To promote the development of an understanding and an appreciation of organized society.

4. To promote the development of an appreciation of the force of law and of love that is operating universally.[1]

In this short discussion of the functions of schools with special reference to their functions in our American democracy, an attempt has been made to show the close relationship between the nature and aims of the school and the nature and aims of the society in which the school operates. Primarily, schools constitute an investment of society with the expectation that large dividends will be paid in terms of improved social conditions. The schools should constantly strive to transmit the best of the social inheritance and to contribute to the gradual improvement of society.

Organization and Functions of School Units

Let us now attempt to develop a picture of the organization of the various units in the public school systems in the United States and to indicate some of the specialized functions of each unit. From the reading of the preceding chapters it should be clear that the present units of the school system did not evolve as the result of a carefully made plan and that even today the units are in a process of change and adjustment.

Plans of Organization. Although the public school system has been changing gradually and continually as to the units of organization, certain general patterns have become more or less common at various stages of development. The older and tradi-

[1] National Education Association, Department of Superintendence, Sixth Yearbook (1928): *The Development of the High School Curriculum*, p. 51.

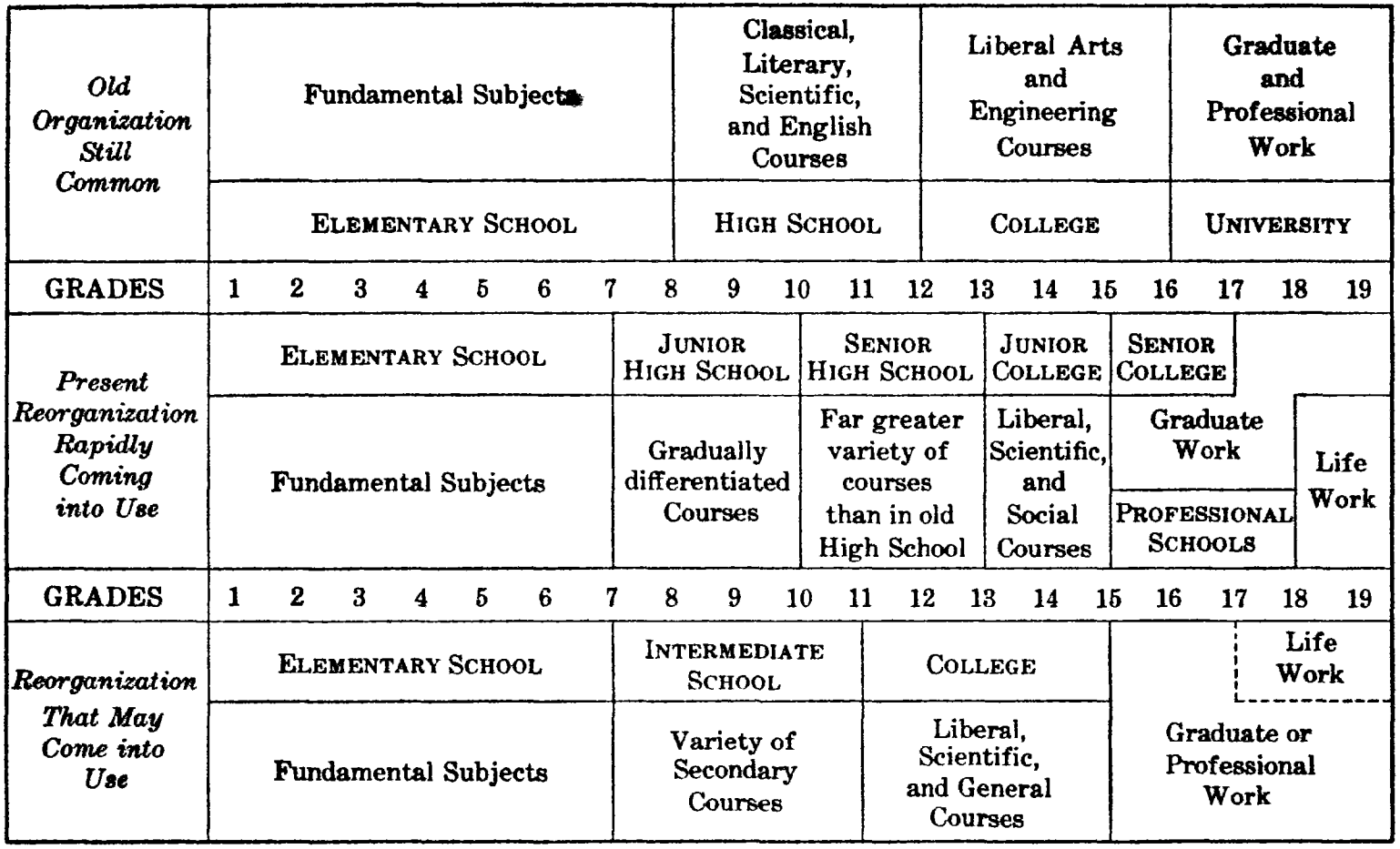


FIG. 4. ORGANIZATION OF SCHOOL UNITS

tional organization of the school system was called the 8–4 plan. Under this plan the elementary school covered a period of eight years, the high school extended four years, and the college and professional schools and universities were beyond the high school.

The 8–4 plan during the last twenty years has been yielding to the 6–3–3 plan of organization, which allots six years to the elementary school, three years to the junior high school, and three years to the high school. Sometimes this plan of reorganization is varied to make a 6–6 system with six years in the elementary school and six years in the combined junior and senior high schools.

The rapid recent growth of junior colleges in many public school systems has developed the 6–3–3–2 plan of organization with the last two years representing the junior college as a separate unit. There is a significant tendency to reorganize the system to make it a 6–4–4 plan with six years in the elementary school, four years in an intermediate school, and four years in a senior high school or a college. The somewhat recent downward extension of the elementary school has included at least one year for the kindergarten and one or more years for the nursery school. The school systems in some of the southern states are organized on a basis of eleven rather than twelve years.

Something of the great variety of school organization now found in the United States can be obtained from the following table:

Eleven-Year Plan	*Twelve-Year Plan*	*Fourteen-Year Plan*
7–4	8–4	6–4–4
6–5	7–5	8–6
5–6	6–6	8–4–2
5–3–3	6–3–3	6–8
5–2–4	6–2–4	

A close study of Figure 4 will give a more comprehensive and integrated view of the organization of the units in the American school system.[1]

[1] Figure from Frank P. Graves, *The Administration of American Education*, p. 79. By permission of The Macmillan Company, publishers, 1932. A review of the organization of school systems as the student has known them in his

Elementary Education

Until the growth of the free public high school reached the stage when secondary education was considered a part of the opportunities for all, the ideal of equal educational opportunities for all the children of all the people meant the opportunity of the elementary school. For a long time the most usual organization of the elementary school included eight years; at the present time the tendency is to include only the first six years of the elementary school under the heading of elementary education. The seventh and eighth years are coming to be organized very rapidly as a part of secondary education.

The extension of the concept of elementary education downward has not been followed by the organization of a single comprehensive elementary educational unit. The nursery school, kindergarten, and elementary school are still organized as separate and distinct units with considerable variation in school procedures. The kindergarten developed earlier than the nursery school and is now found more frequently in the organization of public school systems.

The immediate objectives at the level of elementary education agree with the general aims and functions of the public school system and emphasize such immediate aims as seem to be most appropriate for that period of life. A committee of the Department of Superintendence of the National Education Association enunciated two principles in considering the objectives of the elementary school. The first principle states that:

> One of the specific things which formal education must do is to pass on from each generation to the next whatever worthy benefits a civilization of the past has brought to the public welfare.

The second principle, of equal importance, is as follows:

> Through the methods and processes by which this heritage of the past is transmitted from generation to generation, formal education must do its best to secure in the individual the development of all those latent

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personal experience and an exchange of experiences with his friends and other members of the class will greatly expand his conception of the present organization of the schools and the continuous changes which they are undergoing.

and wholesome powers that are essential to the master ability of using that which civilization has transmitted for the promotion of the public welfare.[1]

The acceptance of one of these principles without an equal acceptance of the other would give a false criterion for the measurement of all educational processes. Some leaders in education would insist that the first principle would place too much emphasis upon the mastery of subject matter. On the other hand, an attempt to develop the individual powers apart from the social heritage would meet equal objections from many educators. In a democratic society, public education cannot promote the general welfare by attempting to transmit the social heritage from generation to generation without due consideration for individual abilities, interests, and aptitudes. Likewise, in a democratic society the development of individual abilities and interests must be in harmony with the social heritage and the good of society. The difference between these two principles in elementary education today is illustrated, on the one hand, by emphasis on a subject-matter curriculum and, on the other hand, by the child-activity curriculum. The aims and organization of elementary education should include both of these principles.

Nursery School. Like each unit in the public school system the nursery school developed to serve a social need. Some conditions in society indicated a need of care for the child outside the home in the pre-school period. The term "pre-school" has often been applied to nursery schools. Among other services, the nursery school has provided the necessary care and protection for the child whose mother is engaged in regular employment or in other types of activities outside the home. The development of nursery schools has been greatly stimulated by the increasing recognition given to the importance of the early years in a child's life for the development of habits and personality. Hence, it would seem that the nursery schools will increase in the immediate future, especially

[1] National Education Association, Department of Superintendence, Seventh Yearbook (1929): *The Articulation of the Units of American Education*, pp 82–84.

in urban communities where the demands of industrial society create an urgent need for the services of such a school.

In a general way, the nursery school functions to supplement the home. A good nursery school resembles closely a good home in many ways, and an effort is made to provide for the physical and mental development of the child and to encourage proper emotional adjustments and the desirable habits for personal living. Social relationships are usually stressed and larger interests are developed. The health program frequently includes personal and medical supervision. The periods of the school day usually provide for play, nutrition, rest, and construction activities. Nursery schools are not standardized, and a general pattern which will apply to the majority of them has not been developed.

Although there is a growing tendency to make provisions in public schools for the nursery school, the present status of such schools could not be considered as an accepted part of the public school organization. The emergency educational program of the Federal Government from 1933 to 1936 established nursery schools in nearly all states.

Since the nursery school is the newest of the units seeking admission to the public school system, it is important to remember that most of the nursery schools are now private institutions and that the size of the enrollment is usually small. Under present conditions there exists a stimulus for initiative and experimentation. The range in the ages of children reported enrolled in these schools varies all the way from one to five and one-half years. At the present time most of the children are over three years of age. There is already some tendency to consider the nursery school as a school for children from two to five years of age.

Kindergarten. The kindergarten was the first of the pre-school institutions to receive favorable recognition in the United States. It was transplanted from Europe, where it was founded by Froebel. It started as a private institution and was first established in this country in Wisconsin in 1856. The first public school kindergarten became a part of the St. Louis school system in 1873.

The establishment and development of the kindergarten in the United States was promoted by a recognition of many of the forces which now operate to promote the extension of the nursery school. Under present conditions in our society, the home is more limited in its educative influence than it formerly was. The kindergarten supplements the education of the home, provides a better training than the home usually gives at a period of great importance in child development, and frequently cares for the child during hours when the mother is not able to give adequate supervision.

The kindergarten aims to provide a suitable environment for more complete experiences, promote physical well-being, and develop good habits and social behavior. The child is encouraged to adjust himself to the social group and to develop individuality. Some of the common activities in the kindergarten include play, dramatization, games, and constructive and creative work such as hand construction, art, and music.

A committee of the Department of Superintendence of the National Education Association reported that the kindergarten should be the continuation of the work begun in the home and nursery school and should teach the further education of the child in the following ways:

1. To train the child more readily to adapt himself to his environment.
2. To teach the child to realize that the privileges and rights he formerly had as an individual cease to be his alone when he becomes a member of a group.
3. To teach the child to associate with those outside of his family group.
4. To develop the power of self-control.
5. To provide for many children an enriched environment.[1]

The usual age for kindergarten pupils in the public school system is from four to six years, with a tendency to provide only one year within the age limit of four and one-half to six years. The recognition of the kindergarten has reached the stage where it is generally accepted as an integral part of the public school

[1] National Education Association, Department of Superintendence, Seventh Yearbook (1929): *The Articulation of the Units of American Education*, p. 69.

system in larger cities. In small cities the kindergarten is less common. On the whole, it cannot be considered as a common part of the elementary school system.

Something of the importance of this unit of the school system can be gained from noting that a peak enrollment [1] of 750,000 in 1930 included about 30 per cent of the five-year-old children in the country. According to the latest available figures from the United States Office of Education [2] the enrollments in the kindergarten in 1934 numbered 601,775. The chief factor in the decrease in the enrollment of the kindergarten from 1930 to 1934 was the reduction of school budgets caused by the economic depression.

Elementary Schools. The elementary school trains the young in the group culture and selects the methods and procedures adapted to the mental age, physical development, and immediate experiences of the children. It is now commonly agreed that the child in the elementary school should do more than acquire a few common skills and basic information. The mastery of the so-called "tools" of education is not enough. The child must have those experiences which will develop desirable interests and abilities. Childhood is not merely a preparation for adulthood, but on the other hand should be capitalized for the opportunity of the richest living in its own sphere of interests.

In this country the elementary schools have reflected to a marked degree the influence of the philosophy of John Dewey. The conception of school as an actual and valuable part of life has resulted in breaking down the formalisms of the traditional elementary school with its primary emphasis upon the mastery of certain subject matter organized and developed in logical units. A better understanding of the nature of the child and the demands of individual differences has transformed the modern school into a place where the child lives on the broadest and richest level of his own experience. Dewey's philosophy is sometimes interpreted to

[1] Mary A. Davis, "A Century of the Kindergarten," *School Life*, Vol. XXII (November, 1936), p. 68.

[2] *Statistics of State School Systems, 1933–34*, p. 5. United States Office of Education, Bulletin 1935, No. 2.



Courtesy of School Life

A Modern Kindergarten



STUDENTS MANAGE STUDENT BODY FINANCES, LOS ANGELES

justify the extreme freedom of the child in all his activities. Such an interpretation fails to recognize properly the transmission of the social heritage and the development of desirable social adjustments for the good of society.

Four objectives for the elementary school unit were stated by a committee of the Department of Superintendence of the National Education Association in the following words:

1. Advance the child, although by no means perfect him, in his ability to read, write, and speak correctly the English language, and to know and to use intelligently the elementary processes of arithmetic.

2. Advance the child in his ability to know and to observe the laws of physical and mental health and well-being and to appreciate the meaning of life and of nature.

3. Advance the child in his ability to know and appreciate the geography and history of his own community, state, and nation, and of the world at large; to sense his share in the social, civic, and industrial order of such a democracy as ours, and to meet to the full the obligations which such knowledge and appreciation should engender, to the end that justice, sympathy, and loyalty may characterize his personal and community life.

4. Advance the child in his ability to share intelligently and appreciatively in the fine and the useful arts through the pursuit of music, drawing, and literature; of manual training, and the household arts as they are related to the three great universal needs of food, clothing, and shelter.[1]

Secondary Education

From the traditional four-year high school, secondary education has extended downward to include the junior high school and upward to include the junior college. Several different forms of secondary education, gradually changing in type of organization, should be borne in mind.

The general aims of education apply to secondary education equally with all other levels of organization. In addition to the

[1] National Education Association, Department of Superintendence, Seventh Yearbook (1929): *The Articulation of the Units of American Education*, pp. 84–85.

older and traditional function of preparation for college, the high school in recent years has emphasized the needs of adolescents and those demands for education arising from individual differences. The Commission on Reorganization of Secondary Education appointed by the National Education Association stated seven objectives of secondary education as follows: health, command of fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure, and ethical character.[1]

Junior High School. The junior high school as a distinct unit of secondary education developed largely after 1915. Even today it is not included as a separate unit in many school systems. The early junior high schools aimed to bridge the difficult gap between the elementary school and the first year of the high school, by providing a much richer and more suitable variety of educational opportunities for early adolescents than could be provided in the traditional organization of the seventh and eighth grades in the elementary school; and also by making better provision for individual differences, exploration, and guidance. Like any other unit of school organization, the junior high school can be justified only when it provides better educational opportunities for the appropriate age levels than do other units in the school system.

High School. The traditional four-year high school is rapidly being displaced by a junior high school and senior high school, or by the six-year type of organization, including both junior and senior high school grades. The six-year type of organization has been found especially valuable for smaller cities and towns that cannot well provide separate organizations for junior and senior high schools.

The general aims and functions of secondary education govern the high school with emphasis upon differentiation and some specialization according to individual needs. Since the high school is the last opportunity for formal education of the vast majority of

[1] *Cardinal Principles of Secondary Education*, pp. 10–11. United States Office of Education, Bulletin 1918, No. 35. For other important statements of the aims of secondary education the student is referred to the references at the end of this chapter.

our population, the implications for citizenship training and vocational guidance are clear. Only a relatively small proportion of the boys and girls who enter high school continue their education in college. The high school, therefore, must not be considered primarily as a college-preparatory institution.

Two functions of the school as proposed by Briggs seem to have special merit for the high school:

> The first duty of the school is to teach pupils to do better the desirable things that they are likely to do anyway. . . .
>
> Another duty of the school is to reveal higher activities and to make them both desired and to a maximum extent possible.[1]

The acceptance of these statements would rapidly transform the tendency of some of the high schools to remain traditional, formal, and academic in character.

Junior College. Considered as a separate organization covering the first two years of the traditional four-year college curriculum, the junior college as a private institution is not new. As an upward extension of the high school to include the thirteenth and fourteenth years or grades, however, it is still in the early stages of growth. The establishment of junior colleges in many states is handicapped by the constitutional and statutory provisions regarding the distribution of school funds.

During the last twenty years, rapid progress has been made in the development of the junior college. In 1934, according to Greenleaf, a total enrollment of 102,477 was found in 535 institutions of junior college type.[2] This study also showed that "twenty-seven states now provide public junior colleges either by general legislation, special acts, or local authority" and that more than half of the 190 public junior colleges are located in California, Iowa, Texas, and Oklahoma.[3]

The privately controlled junior colleges may be divided into

[1] Thomas H. Briggs, *Secondary Education*, pp 258, 263 By permission of The Macmillan Company, publishers, 1933.

[2] Walter J. Greenleaf, *Junior Colleges*, p. 45. United States Office of Education, Bulletin 1936, No. 3.

[3] *Ibid.*, p. 11.

two types: (1) junior colleges controlled by private enterprise independent of church or state, and (2) denominational junior colleges supported by the church.

The junior college is defined in different ways by various educational agencies. It would seem best not to accept as final any one definition of this growing institution.

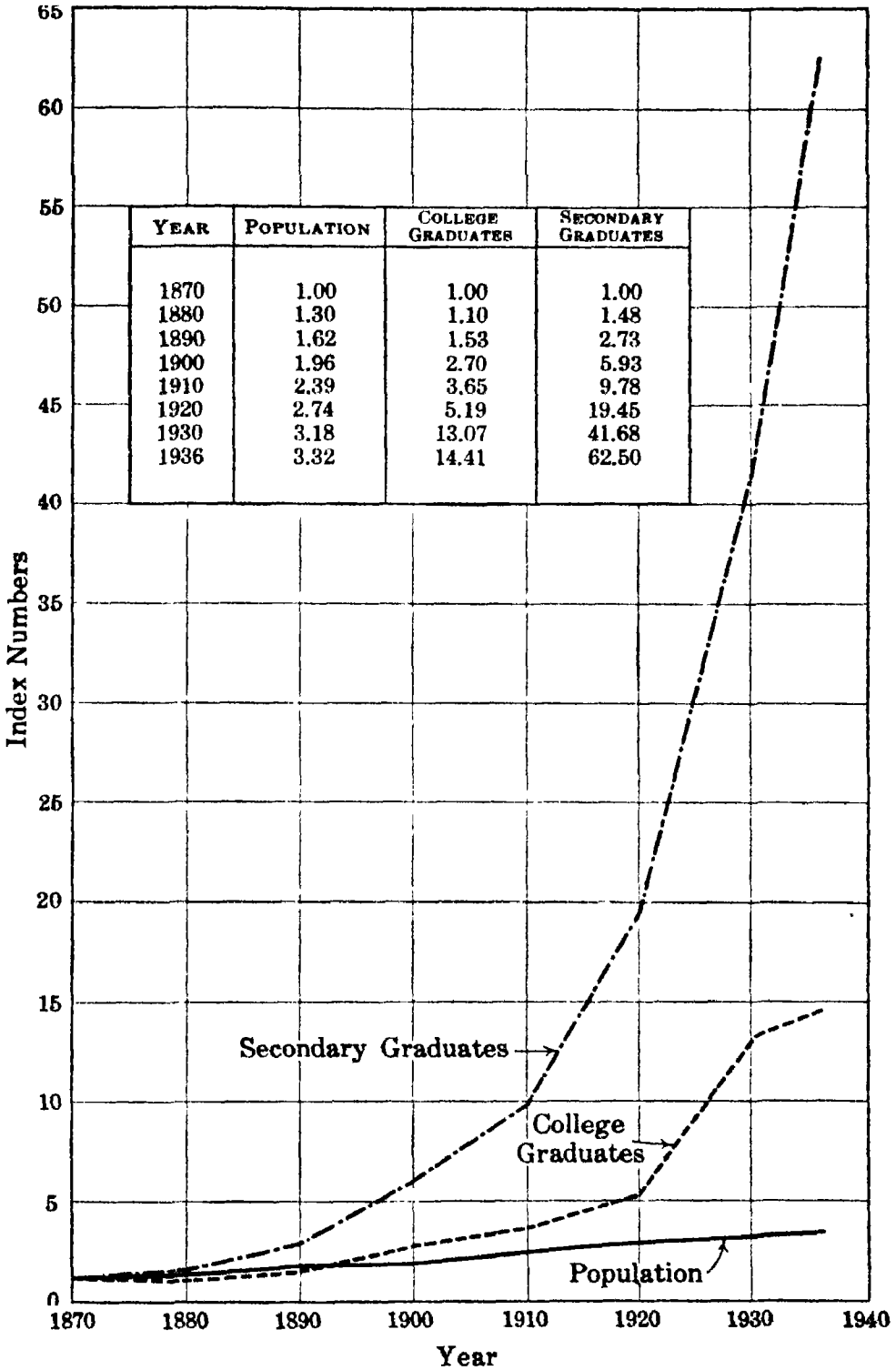
The American Association of Junior Colleges maintains that the junior college in its present development comprises different forms of organization: First, a two-year institution embracing two years of collegiate work in advance of the completion of an accredited secondary school course. The two-year curriculum of this type shall be equivalent in prerequisites, methods, and thoroughness to that offered in the first two years of an accredited four-year college. Second, an institution embracing two years of standard collegiate work as defined above and integrated with one or two continuous years of fully accredited high-school work administered as a single unit To be accredited it should have at least fifty students in its two upper years.[1]

As a two-year institution the junior college has met with several objections, and there is now a tendency to adopt the 6–4–4 plan of organization in a few public school systems. If the thirteenth and fourteenth years come to be included in the junior college of the future public educational system, the form and functions of the traditional four-year senior college will inevitably be changed. It has frequently been suggested that the traditional four-year college may gradually disappear, because the graduates of the junior college will go directly to the higher education provided by the universities and professional schools. Like most changes in the types of organization of educational institutions, such a development would probably require a long time.

Higher Education

"Higher education" is the general term employed to represent those educational opportunities on the next level above secondary education. The junior college as a part of the free public school

[1] *Ibid.*, p. 4.



Year	Population	College Graduates	Secondary Graduates
1870	1.00	1.00	1.00
1880	1.30	1.10	1.48
1890	1.62	1.53	2.73
1900	1.96	2.70	5.93
1910	2.39	3.65	9.78
1920	2.74	5.19	19.45
1930	3.18	13.07	41.68
1936	3.32	14.41	62.50

FIG. 5. INDEX OF INCREASE IN COLLEGE AND SECONDARY SCHOOL GRADUATES, 1870–1936

system is coming to be classified rather generally as secondary education, but the junior college under our present forms of education in most colleges is considered a part of higher education. The traditional four-year college, the normal school, the teachers college, the professional school, and the university are the common units of organization in higher education. Approximately eight hundred institutions of higher education are located in the United States. These institutions may be classified in a number of ways, such as: private or public institutions, denominational or nonsectarian institutions, and liberal arts colleges or technical colleges.

Somewhat comparable to the development of secondary education in the United States is the growth of opportunities for higher education. The college is beginning to lose its selective character. Approximately 40 per cent of the graduates of secondary schools attend some institutions of higher education. By far the largest body of college students of any nation in the world is found in the United States. According to the United States Office of Education, the college enrollments for 1936, carefully estimated, were 1,179,000.[1] An idea of the rapid growth in the number of college students can be gained by comparing the present enrollment with that for the year 1920, which was 597,857.

In 1920, a total of 48,622 people were graduated from our colleges, while in 1934 the graduates increased to 137,845. A general idea of the increase in college and secondary school graduates may be gained by a short study of Figure 5, which shows the increase in the total population, college graduates, and secondary school graduates since 1870.[2]

Three of the common purposes of institutions of higher education are the promotion of higher learning, professional preparation, and research. In the United States most of the institutions of higher education are primarily teaching institutions, whereas in Europe they are examining institutions. According to Morrison, higher

[1] *March of Education.* United States Office of Education, News Letter No. 11, November, 1936.

[2] From David T Blose, "High School and College Graduates," *School Life*, Vol. XXII (November, 1936), p 70.

education begins when the individual has "found the sustaining intellectual interests, and has attained the sense of intellectual responsibility, and has acquired the fundamental methods of thinking which make him a self-governing intellectual and social unit."[1] In actual practice much of the instruction in our undergraduate colleges is more closely related to the usual type of secondary education than to the specialized achievements in the professional schools or to the research in the graduate and professional schools. One of the most hopeful movements in the colleges in this country is that which emphasizes the responsibility of the individual student. Rollins College, the University of Chicago, and several others have instituted promising reorganizations in line with this general movement.

Common Degrees Granted by Institutions of Higher Education. The Bachelor of Arts degree (B.A.) or the Bachelor of Science degree (B.S.) usually requires four years of successful work in an undergraduate college. The Master of Arts degree (M.A.) requires at least one year beyond the completion of the B.A. or B.S. degree. The Doctor of Philosophy degree (Ph.D.) usually requires at least two years of successful work beyond the completion of the Master of Arts degree or three years beyond the completion of the Bachelor's degree. The list of degrees granted by professional schools is too long to be presented in this discussion.

The College. As a form of higher education, the college is one of the earliest of our educational institutions. It gradually developed into a four-year institution with emphasis upon the liberal arts and those studies needed as a preparation for the older professions. During the last twenty-five years the American college has made many changes in its form of organization and in its curriculum. The traditional Bachelor of Arts degree, with its emphasis upon the classics and foreign languages, has yielded steadily to the Bachelor of Science degree, which places less emphasis upon these fields of study. Many of the colleges include curricula which are largely professional in nature. A Bachelor's degree is no longer a satis-

[1] Henry C. Morrison, *The Practice of Teaching in the Secondary School*, p. 13. University of Chicago Press, 1926.

factory index of the nature and variety of the courses completed in college. All in all, the college is now yielding to the same influences that forced a differentiated curriculum upon the high school and made more urgent the provisions for guidance. Since most of the colleges in this country are private institutions, it seems probable that the changes in the colleges will not be as rapid or as comprehensive as the transformation of the high schools. Colleges that are supported by state funds, however, are likely to follow the general pattern of the changes and developments in the public high school.

Normal Schools and Teachers Colleges. Normal schools and teachers colleges represent a type of institution for the education of teachers which has developed apart from the traditional college. Before the establishment of public high schools in practically all communities, the normal schools included the offerings of secondary education. Gradually, the work in secondary education diminished and the normal schools evolved as institutions offering two or three years of professional training beyond the high school. Inasmuch as a large proportion of the work of the normal schools was distinctly of a teacher-preparation type, graduates from the normal schools usually had considerable difficulty in obtaining credit for much of their work in the traditional colleges.

The chief emphasis in the normal schools in the earliest stage of development was placed upon the preparation of teachers for elementary schools. The liberal arts colleges continued to prepare by far the largest proportion of teachers for the high school. During the last twenty years, however, a decided movement has been carried forward to make the normal schools four-year institutions on a collegiate level and to prepare teachers both for the elementary schools and for the high schools. Teachers colleges have thus undertaken to offer a type of general or liberal education which was formerly the aim of the liberal arts college and, in addition to this development of general culture, to offer specialized professional training for the teaching profession.

One of the more recent tendencies in teachers colleges is to increase the proportion of offerings for the purpose of general educa-

tion in the first years of the curriculum and thereby to postpone somewhat the specialized professional courses. In the preparation of high school teachers, there is a distinct trend toward the offering of a large proportion of strictly professional work on the graduate level leading toward a Master's degree. The graduate work, however, is usually confined to the colleges of education or the graduate schools in the universities. There is some indication that the requirements in the future for students entering the teaching profession will include the completion of the regular college, or the junior college, before entering upon the strictly professional offerings of a specialized division of the university. Such a trend is in harmony with the development of the professional prerequisites of the older professions such as law and medicine.

Professional Schools. Professional schools offering preparation for all of the older and generally recognized professions are usually found in the large universities. The usual requirement for entrance to the professional schools is the completion of the junior college or the first two years of the regular four-year college. One strong tendency in many of the professional schools is to require the completion of the full four-year college curriculum before entering upon the specialized study offered in the professional school. Among the specialized professional schools frequently found in universities are those for preparation in the fields of medicine, law, agriculture, engineering, education, household arts, fine arts, business, journalism, veterinary medicine, pharmacy, dentistry, forestry, mining, and architecture. The length of the curriculum in the professional schools varies from one to four years. In a few professions, such as medicine, an additional period of interneship or apprenticeship must be served as a part of the preparation for the actual practice of the profession.

The University. In the United States the term, or name, "university" is applied to a group of schools or colleges offering various types of higher education. The university in this country, however, is usually not limited to graduate work, because one of the schools or divisions of the university usually includes the undergraduate or liberal arts college. One of the common characteristics of the

universities is that they provide an opportunity for study and research beyond the level of graduation from the liberal arts college. In the earlier years of higher education in the United States, the development of large private universities was a distinguishing characteristic of education. In later years, an important trend in higher education has been the development of large state universities which, in reality, represent the highest units of the public school systems in many states.

Articulation of the Units of School Organization

It has been emphasized that the various units of school organization did not evolve as a result of a clearly perceived plan. The early lack of articulation between the elementary, or common, school and the Latin grammar school, or college preparatory institution, has been greatly improved. The development of each new unit of organization in the public school system presents a possibility of poor articulation with the unit immediately below or immediately above.

The development of a kindergarten presented an important problem in articulation with the elementary school because the freedom of the kindergarten conflicted strongly with the formal procedures of many of the elementary schools. The writer remembers vividly a visit to the model, or training, school of a teacher-training institution in which the freedom and initiative of the kindergarten was in strange contrast to the formal and rigid practices of the first year or grade of the elementary school. It is not reasonable to expect pupils to adjust themselves so quickly to a changed régime.

Under the traditional 8–4 plan of organization, a wide gap usually presented itself between the end of the eighth year and the beginning of the ninth year. The procedures and practices in the high school represented a decided change in methods and manner of approach. Pupils from the elementary school were frequently maladjusted in the high school. One of the chief arguments for the establishment of junior high schools was that they would bridge

the gap between the elementary and the high school. The junior high school would adjust the pupils from the elementary schools more gradually to the usual procedures of secondary education, and the graduate of the junior high school would not find any great difference in the procedures of the tenth year in the high school. In many cases the junior high school has served as a valuable unit for better articulation, but it is important to remember that the introduction of a new unit like the junior high school may create a new gap between the elementary school and the junior high school and another gap between the junior high school and the senior high school. Similarly, the establishment of a junior college may create a gap between the senior high school and the junior college.

For the most part, educational units which are under a unified administrative and supervisory control can be more readily articulated and integrated than institutions which are operated under separate administrative and supervisory organizations. The duplication, overlapping, and poor adjustments between many of the units of the American system of education are a natural result of the evolution of the school system in a democratic society. Progress and change will always show certain deficiencies in desirable articulation between the units of school organization.

In striving to effect and maintain a unified program and desirable articulation between the different units of the school system, it is important to remember that perfect articulation between the school units on the mere basis of organization is of secondary importance. In like manner, the organization of the subject matter, or curriculum materials, in logical units for unified presentation is not the most important criterion of articulation. The true criterion of articulation is the subordination of school organization and arrangement of curriculum materials to the needs of the maximum growth of the individual. Organization of curriculum materials and adjustment of the individual within any unit of school organization should be made according to the welfare and desirable development of the pupil. Articulation should not be conceived as the maintenance of logically organized subject matter, or the articulation of school units which will best fit the

drawing of a perfect chart. The best possible articulation in terms of school organization or curriculum materials will leave a large field for adjustment to individual needs and capacities. The curriculum and the school organization exist primarily to serve the child.

General View of School Functions and Organization

From the discussion in this and preceding chapters, it should be clear that the functions of education are rooted in the purposes and ideals of the supporting society and that the general functions are relatively fixed and commonly accepted. Changes in the aims and values of the organized society mean changes in both the general and specific functions of education. The needs of the individual and of society control the determination of the specific functions of education.

Each unit of school organization accepts the general or ultimate aims of education and places special emphasis upon the immediate objectives of the particular unit of the school system. The democratic ideals of the organization of society in the United States have been reflected in the gradual development of an educational stairway with convenient steps from the nursery school to the university.

The education of each member of society according to his needs and potentialities and in accordance with the welfare of the existing and emerging culture is the paramount function of each unit of the school system. The various units of school organization are but means to this end. Teachers in the schools of our democracy of tomorrow should catch this vision to give the proper perspective to all their efforts.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. What are a few specific functions of schools for children of today which were not commonly recognized as school functions in the schools which your grandfather and grandmother attended?
2. Name and describe briefly a few of the usual conditions in homes

today which limit their possibilities as educational agencies for children.

3. Discuss the proposition that, under the present organization of society in the United States, the ultimate goal of the system of free public education is the welfare of society.
4. Can you give any examples of things which the school might teach to promote individual growth, or to meet individual desires which would conflict with the good of society?
5. Why is the school a social institution?
6. Give one example from present world conditions to illustrate how a change in national purposes or ideals changes the functions of the state-supported school
7. Prepare a list of the educational institutions now active in the community which you know best.
8. Would it be possible or desirable for the school to determine the best kind of organization of society for the future? Defend your position
9. Should the school as a social institution set forth boldly to indoctrinate all youths to help bring to pass the creation of a specific kind of new social order? Illustrate your answer
10. Explain and defend one important function of the public school in a democracy
11. What changes in the units of school organization have occurred during the last twenty-five to fifty years in the community which you know best?
12. According to the latest reports of the state department of education, what are the units of school organization most common in your state?
13. From your own school experience, reading, and observation, what have been a few changes in the concepts and practices of elementary education in your own community during the last ten to twenty-five years?
14. According to your present understanding, is the chief purpose of elementary education to develop skills in those subjects which are sometimes called "the tools of knowledge"? Defend your answer.
15. How would you point out the advantages of the kindergarten to a parent and taxpayer in a community which is debating an item in the school budget for a kindergarten in the local school system?
16. As you now see it, what were a few of the most valuable services which your high school gave to you?

17. Prepare a list of the probable advantages of and objections to a junior college in your community or county.
18. How do you explain the fact that in the United States, during the last fifty years, the percentage of increase of both high school and college graduates has far exceeded the percentage of increase in the total population?
19. According to your best judgment, what are some of the advantages and disadvantages of teachers colleges and liberal arts colleges in preparing teachers?
20. If you should decide to do graduate work in education, what are some of the institutions and some of the offerings which might attract you?

SELECTED REFERENCES FOR FURTHER READING

Associated Academic Principals of the State of New York, "Aims and Functions of Secondary Education," *Summary Report of the Committee on Secondary School Problems*, pp. 9–20. New York State Department of Education, Albany, 1932.

P. Roy Brammell, *Articulation of High School and College.* United States Office of Education, Bulletin 1932, No. 17; National Survey of Secondary Education, Monograph No. 10.

Thomas H. Briggs, "Articulation: Some Fundamental Purposes and Its Ideals," National Education Association, Department of Secondary School Principals, *Bulletin*, No. 30, March, 1930.

—— *Secondary Education*, Chs XIII–XV. Macmillan, 1933.

—— "The Special Functions of Secondary Schools," National Education Association, Department of Superintendence, Seventh Yearbook (1929): *The Articulation of the Units of American Education*, pp. 196–207.

Cardinal Principles of Secondary Education. United States Office of Education, Bulletin 1918, No. 35.

Philip W. L. Cox and R. Emerson Langfitt, *High School Administration and Supervision*, Chs. I, XXIX. American Book Company, 1934.

Calvin O. Davis, *Junior High School Education.* World Book Company, 1924.

Mary D. Davis and R. Hansen, *Nursery Schools: Their Development and Current Practices in the United States.* United States Office of Education, Bulletin 1932, No. 9.

John Dewey, *The School and Society.* University of Chicago Press, 1900.
Aubrey A. Douglass, *Secondary Education.* Houghton Mifflin, 1927.
—— *The American School System.* Farrar and Rinehart, 1934.
Edgar M. Draper and Alexander C. Roberts, *Principles of American Secondary Education.* Century, 1932.
Walter C. Eells, *The Junior College.* Houghton Mifflin, 1931.
Fred Engelhardt and others, *District Organization and Secondary Education.* United States Office of Education, Bulletin 1932, No. 17; National Survey of Secondary Education, Monograph No. 8.
Ilse Forest, *Preschool Education.* Macmillan, 1927.
George W. Frasier and Winfield D. Armentrout, *An Introduction to the Literature of Education*, Ch. XIII. Scott, Foresman, 1931.
Frank P. Graves, *A Student's History of Education.* Macmillan, 1936.
—— *The Administration of American Education*, pp 606–620. Macmillan, 1932.
Walter J. Greenleaf, *Junior Colleges.* United States Office of Education, Bulletin 1936, No. 3.
John L. Horn, *Principles of Elementary Education.* Century, 1929.
—— and Thomas W Chapman, *The Education of Children in the Primary Grades.* Farrar and Rinehart, 1935.
John B. Johnston, *The Liberal College in Changing Society.* Century, 1930.
Charles H. Judd, *Problems of Education in the United States*, Ch. III. McGraw-Hill, 1933.
Isaac L. Kandel, *Comparative Education*, pp. 486–519, 790–826. Houghton Mifflin, 1933.
—— *History of Secondary Education*, Ch. IX Houghton Mifflin, 1930.
—— (Ed.), *Educational Yearbook.* International Institute of Teachers College, Columbia University, 1932.
Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *Part-Time Secondary Schools.* United States Office of Education, Bulletin 1932, No. 17; National Survey of Secondary Education, Monograph No. 3.
—— *The Horizontal Organization of Secondary Education.* United States Office of Education, Bulletin 1932, No. 17; National Survey of Secondary Education, Monograph No. 2.
Frederick J. Kelly, *The American Arts College.* Macmillan, 1925.
Raymond A. Kent (Ed.), *Higher Education in America.* Ginn, 1930.
William H. Kilpatrick, *Education for a Changing Civilization.* Macmillan, 1926.

Louis R. Kilzer, "Development and Present Status of the Six-Year High School," *American School Board Journal*, Vol. LXXXV (October, 1932), pp. 29–39.

Edgar W. Knight, *Education in the United States*, Ch. XIII. Ginn, 1929.

Leonard V. Koos, *The Junior College Movement*. Ginn, 1925

—— *The Junior High School*. Ginn, 1927.

R. Emerson Langfitt, Frank W. Cyr, and N. William Newsom, *The Small High School at Work*, Chs. IV, XXIX. American Book Company, 1936.

Henry C. Morrison, *The Practice of Teaching in the Secondary School*, Ch I. University of Chicago Press, 1926.

National Education Association, Department of Superintendence, Seventh Yearbook (1929): *The Articulation of the Units of American Education*.

Nursery Schools — Their Rise and Development in the United States. United States Office of Education, Bulletin 1932, No. 9.

S. Howard Patterson, Ernest A. Choate, and Edmund deS Brunner, *The School in American Society*, Chs. II, VIII, XIII, XVIII International Textbook Company, 1936.

William M. Proctor and others, *The Junior College*. Stanford University Press, 1927.

Anna Y Reed, *Human Waste in Education*. Century, 1927.

School Organization, Ch. II (*Review of Educational Research*, Vol IV, No. 4, October, 1934). American Educational Research Association, National Education Association.

Tenjes H. Schutte (Ed.), *Orientation in Education*, Chs. VIII-X Macmillan, 1932.

William A. Smith, *Secondary Education in the United States*. Macmillan, 1932.

Barnett W. Taylor, "Articulation between the Elementary School and the Junior High School," National Education Association, Department of Secondary School Principals, *Bulletin*, No. 30 (March, 1930).

Carleton W. Washburne, *Adjusting the School to the Child*. World Book Company, 1932.

Lester M. Wilson and Isaac L. Kandel, *Introduction to the Study of American Education*, Chs. VI–VIII, XI.

George F. Zook, "Relative Merits of the 6–4–4 Organization," National Education Association, Department of Secondary School Principals, *Proceedings*, Bulletin No. 10, 1932.

CHAPTER VIII

CONTROL OF EDUCATION

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Public education in the United States has traveled a long and arduous journey in its struggle to overcome its heritage of sectarianism and social inequality. These were the outgrowth of two factors: (1) the attempt of the colonists to enjoy religious freedom and to preserve their various religious sects in the New World, and (2) the class system which developed as a result of the agricultural type of society which grew up in one section of the country. As our country grew, it became apparent to its leaders that neither church domination nor control by private interests would ever produce the type of citizenry needed in a country founded on ideals of freedom and equality. So, by a gradual process of evolution, the free, secular, tax-supported schools of today have been established for the education of the masses and are controlled, through the delegated authority of the public whom they serve, by the local, county, state, and — to some extent — Federal governments.

Public Education

Early Control. Three clearly marked types of educational practices or conceptions as to educational responsibility characterized the situation in the colonies during the eighteenth century: namely, the Calvinistic idea found in New England, the parochial school concept of the middle colonies, and the pauper school attitude prevalent in the South. Each was more or less influenced by the religious belief prevailing in the particular section.

(1) In New England. The Puritans of the New England colonies, in quest of religious freedom, brought with them the Calvinistic conception of a religious state with a system of state-supported schools in which all children might be sufficiently educated to read the Scriptures. In the beginning this obligation was voluntarily assumed by the home, but Massachusetts, by the laws of 1642 and 1647, took the initial steps toward making education a state responsibility. The act of 1642 made the parents and masters of apprentices legally responsible for the education of their children, while that of 1647 also required all towns with one hundred families or householders to establish secondary (Latin grammar) schools to prepare boys for the university. These early schools were supported locally by tuition fees and property taxes — sometimes entirely by the latter. Each New England town was a political and religious unit with the same governing officers for both civil and church affairs. Consequently, the schools were automatically controlled by the church. Gradually, however, as the church and state separated, the schools passed out of the hands of the church and by the close of the eighteenth century had become a state responsibility. Most of the other New England colonies followed a similar order of development.

(2) In the Middle Colonies. In the middle colonies neither state assistance nor interference was considered desirable in carrying out their educational purposes. The parochial school idea of the Dutch Reformed, Mennonites, German Lutherans, Quakers, Catholics, and other religious sects was established. Their underlying philosophy called for a system of church-controlled and privately supported schools designed to perpetuate a particular brand of sectarianism through the medium of their own instruction. This developed a policy of depending upon church and private efforts for educational advantages and, as a consequence, provided education primarily for those who could afford to pay for it.

(3) In the South. In the South the development of large plantations, the rights of primogeniture, and the use of slaves and indentured servants gave rise to definite class distinctions which were reflected in the schools of the colonies. The children of the well-to-

do were tutored at home, attended private schools, or were sent to England to be educated, while the poor children were apprenticed to learn a trade or were sent to a pauper school supported by private interests or charitable organizations. Aside from collegiate education, schooling was considered a charity which the state was under little or no obligation to assist in providing.

Federal Control. The present status of the Federal Government with regard to education is the result of a gradual and increasing assumption of Federal responsibility. Except in certain specified Federal domains, this has developed indirectly rather than by the direct participation of the government. No form of education for the people is mentioned in the Federal Constitution. By the Tenth Amendment it became one of the many unmentioned powers reserved to the states. Nevertheless, by means of land grants for schools, the appropriation of funds for specific types of education, the creation of the Office of Education, and the more recent financial assistance for education during the 1930 depression, the Federal Government has assumed a very definite responsibility toward education in the United States.

From the Revolution to the Civil War, the Federal Government proferred financial assistance and encouraged education in the states through funds and grants of lands. By the passage of the Ordinance of 1785, which provided that the sixteenth lot or section in each township be set aside for public schools, and that of 1787, which stipulated that schools should be encouraged in all states formed from the Northwest Territory, Congress took the initial steps toward national aid for education in the United States. It did not attempt to control such grants in any way at this time. After the passage of the Morrill Act of 1862, however, which granted a certain number of acres of land to each state for the purpose of establishing a college of agriculture and mechanic arts, the government changed both its policy and procedure. It then entered upon a program of stimulating and favoring specialized types or aspects of education through grants of public funds which it indirectly controlled through specified stipulations as to the type of institution for which the money should be used. By the Hatch Act of

1887, for instance, Congress granted a yearly sum to each state with the proviso that it be used for the maintenance of an experimental station in connection with the agricultural or mechanic arts colleges for the purpose of conducting researches in agriculture. The second Morrill Act, passed in 1890, gave a still further grant of money for the support of these land-grant colleges. Then again, by the Smith-Lever Act of 1914, the Federal Government provided aid for extension education of the farm population of each state through the agricultural colleges within the state. Thus land-grant agricultural colleges were established, and their proposed activities made subject to the approval of the Federal Director of Agriculture.

Under the provisions of the Smith-Hughes Act, passed in 1917, the Federal Government inaugurated the promotion of a new type of education, vocational training It was designed to benefit three special classes: (1) those interested in agricultural training, (2) those interested in trade or industrial training, and (3) those concerned with home economics work, and with training teachers for the same. An attempt is made to distribute the appropriation accompanying the act according to the needs of the various states through the allotment procedure, with complementary state or local support. Control over the program is exercised through the requirement that state plans must be approved by the Federal Board of Vocational Education — now part of the United States Office of Education — thus vesting in the Federal Government a large degree of discretionary power in shaping the vocational education policies of the states and enabling it to influence many aspects of vocational education although it coöperates in the support of the teaching and administrative personnel only.

Similar limitations and conditions are incorporated in the vocational rehabilitation law known as the Smith-Bankhead Act of 1920. This act further extends the idea of vocational education; it provides, through a Federal appropriation equal to that furnished by the respective states, for the rehabilitation of persons disabled in industry; and it includes a proviso that each state establish a state board of vocational education and a director of the work.

The Office of Education in the Department of the Interior,

though it has no power of control over public education, performs a valuable service for the schools of the country. This office, under the direction of the Commissioner of Education, who is appointed by the President, acts as a "national bookkeeper" of American education. It collects and analyzes comparative facts on education throughout the country and disseminates this information to the nation at large through publications, conferences called by the Commissioner of Education, letters in response to queries, addresses by staff members before educational meetings, and radio broadcasts. It administers the acts for the promotion of vocational education, vocational rehabilitation, and other phases of education; conducts investigations; makes research studies of important educational problems; maintains a national information center and a library on all phases of American education; and regulates funds appropriated by Congress for specific educational activities such as land-grant colleges and vocational education.

Owing to the diversity of activities relating to education carried on in the various departments and establishments of government, educators for many years have been urging Congress to centralize and unify all educational activities of the Federal Government under a Department of Education which would include the Office of Education. Such a department was created in 1867 but was abolished in 1868. It was replaced by the Office of Education in the Department of the Interior and up to the present time has continued to function as such.

During the administration of President Hoover, a National Committee was appointed to study the advisability of a department and make recommendations. This committee recommended that a Department of Education be established and that a Secretary of Education be placed at its head. It further recommended that all Federal aid be given for general rather than specific purposes, that special phases of education, such as military training, be left where they are, and that educational policies be left to the discretion of the states. No positive action was ever taken by Congress, however, and the Office of Education still remains as a division of the Department of the Interior.

There are few administrative units in the Executive Department and the thirty-seven independent establishments of the Federal Government which are not concerned directly or indirectly with education. The Department of Agriculture working through its various bureaus, such as Plant Industry, Home Economics, Chemistry, Dairy Industry, Biological Survey, and others, is perhaps the most important department in so far as educational services are concerned. However, other departments have also exerted a great influence on the educational and scientific progress of the United States. For instance, the Geological Survey and the Reclamation Service in the Department of the Interior have made valuable contributions in such sciences as geology and geography and have placed much scientific information regarding our natural resources and their preservation at the disposal of the public. In the Department of Commerce such bureaus as the Bureau of Mines, the Bureau of Fisheries, and the Bureau of Standards have also rendered educational services of considerable importance in their respective fields. The Public Health Service, which is under the Treasury Department, has also done a great deal toward improving the general health of the nation by its many studies in the cause and prevention of certain diseases and by making the knowledge gained available to the public through the publication of the results of such research. Within the Department of Labor the Children's Bureau, the Bureau of Labor Statistics, the Bureau of Immigration, and the Women's Bureau have done much educational work along lines relating to the general welfare of children and the improvement of the working conditions of wage earners.

Other departments are responsible for the education of our nationals in the states, in territories, in outlying possessions, or in Federal districts and reservations. The Bureau of Indian Affairs exercises direct control over the education of the Indians in continental United States and Alaska, while the War Department has charge of the schooling of the primitive peoples in Puerto Rico and the Panama Canal Zone. The Navy Department exercises authority in American Samoa and Guam, and the Department of Interior has jurisdiction over the Virgin Islands. The United States War

Department has control over the training of its officers and personnel at West Point and other army schools and posts, and the Navy Department exercises similar control over Annapolis and other naval posts.

In summary, it might be said that there are seven distinguishable fields in which the Federal Government has, either at its origin or at subsequent periods in its development, definitely assumed responsibility in the various educational activities of the nation. Broadly classified, these fields are:

(1) Federal participation in the education of the people in the several states.

(2) The education of persons residing in special Federal areas lying outside the legal jurisdiction of state and other regional governments.

(3) The training of persons in the service of the national government.

(4) The education of the American Indians and other indigenous peoples within the national jurisdiction.

(5) The education of peoples of the territories and outlying possessions.

(6) Scientific research and the collection and diffusion of information regarding education.

(7) The intellectual and educational coöperation of the United States with other nations.

State Control. Although public education by virtue of the implications of the Tenth Amendment was relegated to the states, early history shows that the various state legislatures were more concerned with matters of seemingly greater importance than the education of the citizens and were content to permit the local school districts to manage and operate their schools as they saw fit. Consequently, there was great variation and inequality in educational opportunities among the several states, and even among the communities of each state.

From the beginning of the nineteenth century it became evident that the permissive legislation of the previous century did not

meet the needs of the changing social, industrial, and political life of the country, and that more mandatory legislation was necessary in order to secure equal educational opportunities for all the children in the state. Gradually the states have extended their control over education, until today they govern such matters as local taxation to support schools, minimum length of the school term, certification and salaries of teachers, courses of instruction in specified subjects, minimum standards of attainment, and compulsory attendance of pupils.

In order to carry on their duties and execute their powers more efficiently, many states have delegated the exercise of their authority in educational matters to a state board of education. The members of this board are often *ex officio* members, including state officials such as the attorney general, state auditor, secretary of state, and state superintendent, who are elected by the people for purposes other than education, and whose duties are definitely determined by law. Some have either a board appointed by the governor or legislature or, like Kansas, have mixed boards composed of *ex officio* and appointed members. Originally, these bodies were created mainly for the financial administration and control of school lands. Gradually, however, their functions have been enlarged to include such services as appointing state superintendents of education, county superintendents, and county boards of education; prescribing or recommending textbooks; preparing examinations for teachers; and issuing state licenses. In fact, more than two hundred powers and duties have been delegated to them.

All state school systems are administered by a state superintendent or commissioner of public instruction who acts as the executive officer of the state board of education or by authority granted to him by law. New York was the first state to establish this office, in 1812. This came about as the result of a need for some central control to supervise the annual state grants which had been made for schools under experimental school legislation. The example of New York was soon followed by other states, until today every state in the Union makes provision for this office.

The official title is often stipulated, and the method of choosing the executive and the length of term of office are also provided for. In about three-fourths of the states the superintendent, as he is usually designated, is elected by the people directly; in others he is appointed by the governor or the state board of education for a term of office varying from one year to an indefinite period.

The state superintendent's duties are much the same in different states. In the beginning they were almost exclusively clerical, statistical, and advisory, but the functions of the office have been enlarged until today this official is the chief executive of the state school system and is charged with carrying out the state laws and policies of the state board of education. With the assistance of a staff of specialists in various fields, he is often charged with the duty of prescribing or recommending textbooks, apportioning school revenues; prescribing, shaping, and revising school curricula, certificating teachers, supervising, through official visitations, local school boards, superintendents, and school buildings; keeping account of attendance records; recommending school legislation; hearing appeals, and building up the morale of the whole system.

The state superintendent and his subordinates — assistant superintendents, directors, and supervisors in charge of departments such as elementary education, secondary education, finance, buildings, higher education, and special education - comprise the state department of education and, together with the state board of education, control the state school system.

County Control. In order to control its system of education, the states use their political subdivisions, such as the town in New England and the county in the South and West, as units of control for administrative purposes.

The county organization form and the amount of control exercised vary in different states. In some states the whole county is organized into one school district and, with the exception of separately organized city districts, is directly controlled by the county board of education and superintendent; in others, the county is divided into a number of districts, locally controlled,

over which the county superintendent and county board have limited powers.

In those states, such as Maryland, where the first type of organization is found, the county board, whose members may be elected by popular vote or selected by appointment, controls and supervises the activities of the county schools in the same manner that the city board of education controls the city school system. It is empowered with such important functions as electing the county superintendent of instruction (in some states), appointing and fixing the salaries of teachers, principals, and other employees of the school system, consolidating schools, erecting new buildings, levying the county school tax, prescribing branches of study, and with numerous other equally important duties.

Mississippi furnishes the extreme example of the other type of county organization. In this state the board, which consists of one member appointed from each district by the county superintendent, meets annually and has a few minor duties. The practices in the other states lie somewhere between these two extremes.

All but eight states have an administrative officer generally known as the county superintendent of schools, who is elected by popular vote or appointed for a term of from two to five years. In the beginning his duties were largely clerical and fiscal, with occasional authority to visit schools and examine and certificate teachers, but these responsibilities have been increased until in some states he now has a great number of duties. He is commonly charged with visiting schools, control of county school finances, general supervision of the county school system, district planning, promotion of education generally, and with the submission of reports to the state superintendent and state board of education annually or at more frequent intervals. He is often considered as a law-enforcing agent and in some states is vested with semi-judicial power. He is always the chief executive officer of the county board of education and frequently acts as its secretary.

With such a number and variety of duties, it is impossible for a county superintendent alone to perform all duties efficiently. Many counties in the United States furnish assistants to aid

him in the clerical and supervisory phases of the work, but many provide no help of any kind.

Local Control. The local school unit generally exercises more direct control over public education than any other unit of the state, the amount of control depending upon the particular type of local unit. In most states the county has been subdivided into such small units as the town, township, and district for educational administration. Each unit bears a close relationship to the state and very often to the county organization.

The town system of local school administration is found in New England. Here, in contrast to other sections of the country, the size of a town is quite often determined by such natural boundaries as rivers and hills and may include several villages, rural communities, or sometimes even a city, all under the control of one central unit of government. All schools within the town unit are managed by one central school committee, elected by the people of the entire town, whose duties are similar to those of a local school board. In most states where it is found, the supervision of such a system is delegated to a superintendent of schools who is employed by one or more towns to supervise all schools within their boundaries, to act as executive officer of the school committee or committees, and to report directly to the state department of education.

The township system of local control which is found in the North Central States is generally a combination of the township and district systems. Very few pure examples of this type of organization exist. In its simple form the township as the unit of control manages its schools through a board of one or more trustees who are elected by the people and administer the school affairs of the township in much the same manner as the school committee controls the New England town. In Indiana, which is the best example of this system, one township trustee is given entire control over all school affairs in his township except in incorporated cities and separately organized towns. He serves as clerk and treasurer, builds schools, hires teachers and pays their salaries, and performs other equally important educational services in addition

to his numerous civic duties. In most states, however, where the township system is found, certain districts and cities are permitted to withdraw from the township and support and control their own schools independently of the rest of the township. There is no uniformity among the states as to the number of independent districts which may be set up, nor as to the amount of power granted the township, so that in some states, such as Iowa, the district is, in reality if not in name, the unit of control.

Where the township system prevails, the township is directly responsible to the county school authorities and through them to the state. The county superintendent of schools has some control over the township and districts within the township in such matters as certification of teachers, supervision, and the like, but a great deal of his time is taken up with minor details which arise in a county which has different systems of control within the county unit of administration.

The district is probably the most common type of local control. Generally speaking, there are two principal kinds: namely, the rural or small village district which is found principally in the North Central and Western States, and the city district. Usually each school district of the first type is a corporate unit endowed by the state with certain powers and responsibilities, one of which is the establishment and maintenance of schools within the district. Control over these schools is exercised by a local board of district trustees, usually three in number, which is selected by the people for a term of three years. The amount of power granted to such boards varies among the states but ordinarily includes such functions as employing teachers and fixing their salaries, managing district funds, proposing and sometimes levying taxes, calling district meetings if desired, making reports to the county, visiting schools, keeping the schoolhouse in condition, inspecting the administration and quality of teaching, and taking the school census. In all states where the district system is used, some higher form of supervision is placed over the district, such as the county in the West, the township, or both.

Because of its greater size, variety of educational needs, and

complexity of administration, the city school district presents an enlarged, more complicated, and better integrated type of organization and control than that generally found in the rural or village district. Legally, however, city and rural districts are considered equal in so far as their responsibility to the state is concerned. In a few cities, where the commission form of civil government is in use, the school system is considered as one of the departments of government and is under the control of one commissioner, a city commission, or a board appointed by the commission. Generally speaking, the board of education, through its executive head, the superintendent of schools, his assistants, and various educational departments, is responsible to the people for the control of the city school system. This board usually consists of from five to seven members who may be elected at large by the people or appointed by the mayor or a city commission. The duties of the board are largely legislative and include such functions as electing the city school superintendent, determining the school budget and school policies, and, in some cases, levying taxes. Aside from his duties as educational director for the schools, the superintendent is the chief executive officer of the board and is responsible for the supervision of all departments in the system. The amount of work he does personally along these various lines depends largely upon the size of the city. The larger the city the greater becomes the necessity for delegating certain services to assistants and to various departments such as health, elementary department, secondary department, attendance department, business, building department, principals, and the like, until, in the large cities, his position is nominal and his main service is that of coördinating and directing head of the entire system.

In systems which are composed of a number of schools, elementary and secondary, a principal is placed in control of each local school. While he is subject to the superintendent and the board of education and is obligated to carry out the policies and programs of the board, the manner of doing it is left largely to his own initiative. Together with the teachers and his various assistants, he directs the affairs of his school in accordance with the

established policies of the system. The number and kind of assistants provided for each school depend upon the size and grade of the school. For instance, in the junior and senior high school, such officials as the assistant principal, the deans of boys and girls, or some type of guidance officer carry on some administrative duties under the direction of the principal; in the elementary schools, the principal is relieved mainly of clerical work in order to devote more time to the administrative phase of teaching. In the final analysis, however, the principal is responsible for his school and the efficient functioning of his staff, large or small.

Private Education

In general, there are three main types of private schools: namely, the parochial school, which is denominational and supported by some church; the endowed school, which is financed by income from endowment and gifts; and the private school, owned by one or more persons and commonly operated for profit. In some cases the privately owned or endowed schools of the latter two classes are not operated for profit, but are schools maintained for the advancement of education through experimentation, or for demonstrating some type of educational theory. Control of private schools is usually vested in the church authorities, or in a board of trustees which is generally self-perpetuating, or in the owner or owners of the school. These governing bodies provide an administrative officer who manages the affairs of the school in much the same way that the local superintendent administers the local public school.

Nearly all states provide some sort of control over the private schools. This control, however, lacks uniformity among the states, and is frequently superficial. One of the functions of the state is the investigation of endowed institutions to determine whether or not the objects of the trust are pursued and the funds rightly appropriated. Some states have the power to define the standards upon which institutions are approved or licenses to confer degrees are granted, and to approve the articles of incorporation of such institutions. Others make provisions for visitation and super-

vision by public officials or sometimes require the inclusion of certain materials of instruction in the curriculum. A few states require teachers in private schools to meet the state requirements for teacher preparation. Generally speaking, however, private institutions have a free rein in the management of their affairs.

Control Exercised by Accrediting Agencies

In order to secure greater articulation between the secondary schools and colleges, certain agencies commonly referred to as accrediting associations have been established. These institutions are of two main types, the state and the regional, the latter of which is voluntary. State standardization of schools usually is carried on by the state department of education, but it is also delegated to both the state department and the state university, or may be entirely in the hands of the state university. The service rendered by these agencies is accomplished through standardization of libraries, teacher training, salary schedules, curricula, equipment, and the like, and has resulted in an accredited list of the schools which have met the specified points of standardization. Students graduated from state accredited high schools do not have to stand examination, but are automatically admitted to the state university or other institutions of higher learning which admit students on high school certification.

Although the various voluntary accrediting agencies of the United States have no legal or statutory powers, they exercise considerable control over public and private institutions and greatly influence the shaping of educational policies and programs. Their real power lies in the fear of loss of prestige which is entertained by institutions and their officials for failure to conform to the requirements of these agencies. There are six associations which are well established. They are named according to the section of the country which they serve, such as the North Central Association of Colleges and Schools and the Association of Colleges and Secondary Schools of the Southern States, and together include all the states of the Union with the exception of Nevada. The most active of all is the North Central Association, which serves as

the accrediting agency for twenty-two states.[1] These associations are composed of representatives of the various accredited schools and colleges of the section, and work through committees or commissions on problems relative to standardization and other matters designed to improve the secondary schools and colleges.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. Why are there so many political divisions and subdivisions of government which have some control over education?
2. In whom does the ultimate control of education reside? The immediate control?
3. Why does the Federal Government not directly control public education? In what particular ways does it exercise some form of control over education?
4. What is the function of the United States Office of Education? In what ways does it perform this function?
5. What are the arguments for and against a Federal Department of Education?
6. In what specific ways does each of the following control education: State? County? Town? Township or district?
7. What are the powers of the following over the education: State board of education? County board of education? Local board of education?
8. What are the powers of the following. State superintendent? County superintendent? Local superintendent?
9. What controls does the state commonly exercise over private education? Are they sufficient to insure the patrons of an adequate and efficient program of education in such schools?
10. What services and functions do the accrediting associations perform?
11. Why did the religious groups play such an important rôle in the control of education in the early history of this country?
12. What control does the principal of the local school exercise over the educational matters of his school? What are the limitations? From what source does he derive his authority? Answer these in terms of your experience as a high school pupil and from your readings.

[1] Philip W. L. Cox and R. Emerson Langfitt, *High School Administration and Supervision*, p. 30. American Book Company, 1934.

13. What control do the teachers exercise over the educational matters of their school? What are the limitations? What is the trend?
14. What control do the people of a local community exercise over education? How do they exercise this control?
15. What control do the pupils of a given school exercise over the educational matters affecting them? What procedures do they use?

SELECTED REFERENCES FOR FURTHER READING

William A. Cook, *Federal and State School Administration*. Crowell, 1927.

Ellwood P. Cubberley, *Public Education in the United States* (Revised), Chs. II, V, VI. Houghton Mifflin, 1934

—— *State School Administration*, Chs. V–IX. Houghton Mifflin, 1927.

E. G. Dexter, *A History of Education in the United States*, Ch. XIII. Macmillan, 1904

Aubrey A. Douglass, *The American School System*, Ch. XVIII. Farrar and Rinehart, 1934

Frederick Eby and Charles F Arrowood, *The Development of Modern Education*, Ch XV Prentice-Hall, 1934.

Frank P. Graves, *A Student's History of Education* (Revised), Ch. XVII. Macmillan, 1936

John L Horn, *The American Public School*, Chs. IV, VII–IX, XIV. Century, 1926.

Richard E Jaggers, *Administering the County School System*. American Book Company, 1934.

Ward W. Keesecker, *Legal and Regulatory Provisions Affecting Secondary Education*. United States Office of Education, Bulletin 1932, No. 17; National Survey of Secondary Education, Monograph No. 9.

John H Keith and William C. Bagley, *The Nation and Its Schools*. Macmillan, 1925.

Edgar W. Knight, *Education in the United States*, Chs. III–IX. Ginn, 1934.

R. Emerson Langfitt, Frank W Cyr, and N. William Newsom, *The Small High School at Work*, Ch. II. American Book Company, 1936.

Edward H. Reisner, *Nationalism and Education since 1789*, Part IV. Macmillan, 1927.

United States Office of Education, *The Office of Education, Its Duties, Work, History and Publications*. United States Office of Education, 1935.

CHAPTER IX

SUPPORT OF PUBLIC EDUCATION

N. William Newsom

TEMPLE UNIVERSITY

The faith of the American people in the possibilities of education is best exemplified by the amount of money spent annually for this purpose. Although the ability and effort to finance programs of education in many communities and sections of the country are inadequate for the needs of those communities, nevertheless the sums expended for education represent one of the largest items of public tax expenditures. In fact, education is one of America's biggest businesses, whether judged from the amount of money spent, the number of pupils the school serves, or the number of people engaged in teaching and its related activities.

School Costs

The development and expansion of public education has naturally resulted in greater expenditures. As long as life was simple there was little need for a great deal of "book learning," but as life became complicated the need for an education increased correspondingly. As late as 1870 very little was spent on education; the average expenditure per pupil amounted to only $15, and the average schooling of a citizen was approximately 582 days. Secondary education was for the most part provided by private academies. Since that time, the situation has changed rapidly. Today specialized training as well as a general education is considered the *sine qua non* for the majority of the American people. Public schools, elementary and secondary — and in some communities institutions of higher learning — are provided at public expense and are free and open to all the youth of the area served.

Expenditures for Education. Table IV gives the expenditures for all schools reporting for the school year 1933–34 to the United

TABLE IV *

EXPENDITURES FOR SCHOOLS REPORTING, 1933–34 [1]

SCHOOLS	PUBLIC	PRIVATE	TOTAL
Elementary schools (including kindergarten)	$1,146,934,998	$108,342,138 [2]	$1,255,277,136
High schools and academies	573,170,231 [3]	30,164,907 [2]	603,335,138
Universities, colleges, and professional schools (including preparatory departments) [4]	157,686,707	226,482,246	384,168,953
Teachers colleges and normal schools [5]	33,219,762	2,713,192	35,932,954
Schools for delinquents (1931) [6]	1,794,763	240,222	2,034,985
Schools for deaf (1931) [6]	2,270,431	490,013	2,760,444
Schools for blind (1931) [6]	840,798	222,854	1,063,652
Schools for mentally deficient (1931) [6]	595,574	149,147	744,721
Government schools for Indians [7]	9,578,433		9,578,433
Total expenditures (Continental United States)	$1,926,091,697	$368,804,719	$2,294,896,416
Federal Government schools for natives of Alaska	564,563		564,563
Territorial public schools in Alaska	803,678		803,678

[1] Includes capital outlay. [2] Estimated.

[3] Includes $2,261,951 for night, summer, and part-time schools reported separately from day school expenditures.

[4] $23,394,847 public; $49,087,070 private; and $72,481,917 total expenditure for auxiliary enterprises and activities not included

[5] $5,726,888 public; $521,623 private; and $6,248,511 total expenditure for auxiliary enterprises and activities not included

[6] State and private residential schools only; city public schools not included.

[7] Includes Federal money spent for Indians in the public and private schools and in reservation schools, part of which may be duplicated above.

* *Biennial Survey of Education, 1932–34*, Ch. I, p. 12. United States Office of Education, Bulletin 1935, No. 2. The biennial surveys are the only source of complete data. They are always two or more years behind time.

States Commissioner of Education. The total sum was approximately two and a quarter billion dollars. Nearly two billions, some 3.87 per cent of the national annual income, were spent for public education, while private education accounted for considerably over a quarter of a billion. Public elementary and secondary schools cost $1,858,612,274, or about $76 per pupil in average daily attendance. Almost half a billion was spent for public higher education — colleges and universities and teacher-training institutions. For each adult the bill amounted to $25.61 for public education.[1]

Items of Expenditure. If every pupil attending a public school in the United States were required personally to pay the cost of his education, he would have to pay at the rate of 57 cents a day. Many states and local communities spend considerably more, while many do not spend so much. The various items of expenditure and their respective amounts are given in Table V for the year 1932. For 1934 the amount was approximately 37 cents, but the proportions were about the same. These items include

TABLE V[2]

PUBLIC SCHOOLS OF AMERICA
in account with
JOHN JONES, DR

For all services rendered in educating one child for one day:	
Teaching service	$0 33
Care of building	0 07
New buildings	0.05
Interest and fixed charges. .	0 05
Special services	0 03
Textbooks and supplies	0.02
Administration	0.02
Total	$0.57

[1] *Ibid.*, p. 10.

[2] National Education Association, *School and Taxes*, p. 6. Data from United States Office of Education, *Statistics of State School Systems, 1931–32.*

teaching service, such as teachers' and supervisors' salaries; care of building, such as janitorial service and janitorial supplies; cost of new buildings; special services, including costs for health work, school nurses, doctors, and dentists; textbooks and teaching supplies such as chalk, erasers, maps, paper, and pencils; interest on bonds, rent, and insurance; and administration, which includes the salary of the superintendent and other members of his office, traveling expenses, and secretarial services.

Factors Affecting Cost. Why does education cost so much? This is a question commonly asked of school people, particularly by the critics of public education. It can be answered best by analyzing some of the major factors which largely determine costs.

(1) Enrollment. Statistics compiled by the United States Office of Education show a phenomenal increase in the number of pupils attending school. The number of children enrolled in the public elementary schools increased from 14,181,415 in 1890 to 20,765,037 in 1934. The relative increase in the public high school enrollment has been even greater. It is approximately twenty times greater than the rate of increase in our national population. In 1890 there were 202,963 pupils enrolled in the public secondary schools, whereas by 1936 the number was about 6,500,000. This enormous development in school enrollment has naturally affected expenditures, for it costs approximately two and one-half times as much per year for high school as for elementary school education. This vast expansion has necessitated corresponding increases in the number of teachers and administrators, buildings, equipment and supplies, and other items of expenditure, as previously discussed.

(2) School Term. The increase in pupil enrollment has been accompanied by the lengthening of the school term. The schools of the United States were open, on an average, 158.7 days in 1914, but by 1934 the average term was 171.6 days. This represents an increase of 12.9 days or 7.1 per cent in the average length of the school term. The length of the term, however, varies in different sections and states. It is common to find 6, 7, 8, 9, and

10 month terms. In a few school districts the schools are operated the year round. Since teachers' salaries and many other factors mentioned under "Items of Expenditure" are based upon the length of the school term, it is readily seen that this factor alone is responsible for much of the cost of education. In the poor districts during the 1930 depression, the schools were in a deplorable financial condition; in some communities they have not been opened at all, and in others only for a very short period.

(3) School Attendance. Like enrollments, the number of days which each pupil attends school has also increased greatly. In 1914 each child enrolled attended on an average 86.7 days out of each year, while by 1934 each child averaged 145.8 days per year. This represents an increase of 59.1 days or 68 per cent during this period. This has been brought about partly by compulsory school attendance legislation. By 1928 every state in the Union had passed laws requiring school attendance. The provisions of the laws, however, vary among the several states. In general, they require children between the ages of six and sixteen to attend school for a given length of time, usually the period during which the school is in session within the particular school district. The increase in pupil attendance and the enforcement of the compulsory school attendance laws have both added to the cost of education.

(4) Purchasing Power of the Dollar. The dollar does not always buy the same amount of goods or services. Since 1914 the decreased purchasing power of the dollar has been responsible for much of the increased cost of education. A dollar in 1934, judged by the amount of goods and services it would buy, was worth about 73 per cent as much as the dollar in 1914. On this basis, the public school program which cost $1,926,091,697 in 1934 would have cost only $1,406,046,938 had it been paid for with the 1914 dollar.

(5) Improved Service. Schools are ever attempting to improve their services to youth. New subjects are constantly being introduced and improvements made in the curriculum already in operation. Today teachers are required to be better prepared than

they formerly were. In many states no one is permitted to teach in a public high school who has not had four years of college training, while in one state and in many local communities a Master's degree or the equivalent is required. For teaching in the elementary school many states prescribe two, and some three, years of college training. Equipment better adapted to the particular type of program provided by the school is being installed. Textbooks and supplies are furnished free in many communities and states. Pupil transportation is a common service provided by most schools. Health and dental, psychological, research, psychiatric, and visiting teachers' services, which were not formerly a part of the program of the school, are now common items of service in many schools.

Ability to Support Education

We have briefly considered some of the factors relating to the cost of education. We have seen how expenditures have rapidly increased during recent years owing to the expansion of the educational program. If the schools continue to extend their services in a comparable manner, we may reasonably expect the cost of education to mount accordingly. To what extent the country is financially able to support a program of education is a problem with which all citizens are concerned. Since education in this country is financed by different governmental agencies, it is necessary to understand the ability of each to pay for the educational program.

Ability of the United States. Although education in this country is not financed by the national government, but mainly by the states and their respective political subdivisions, an understanding of the extent to which the country as a whole is able to support education is probably best reached by a few comparisons.

First, compare the financial status of the United States with that of some other nations. This country is one of the richest nations in the world. Just prior to the 1930 economic depression, its national income amounted to approximately seventy-eight billion dollars. Figures 6 and 7 give comparative statistics of the

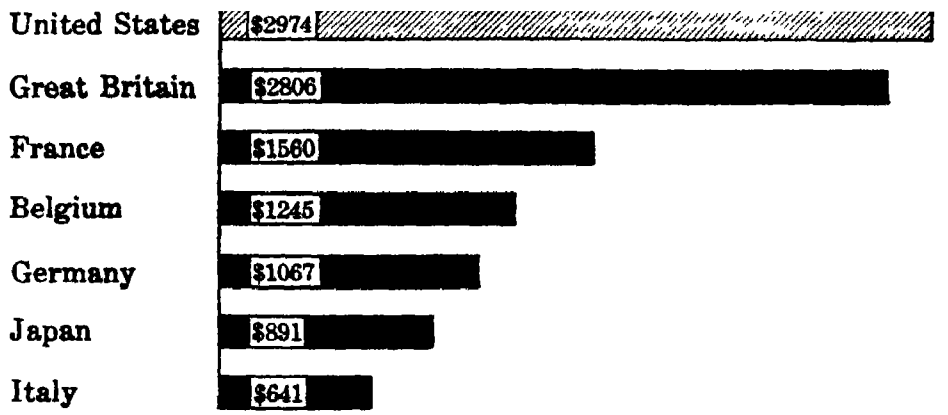


FIG. 6. ESTIMATED WEALTH PER CAPITA, UNITED STATES AND OTHER NATIONS

Calculations based on figures of the National Industrial Conference Board, National Bureau of Economic Research, and the World Almanac

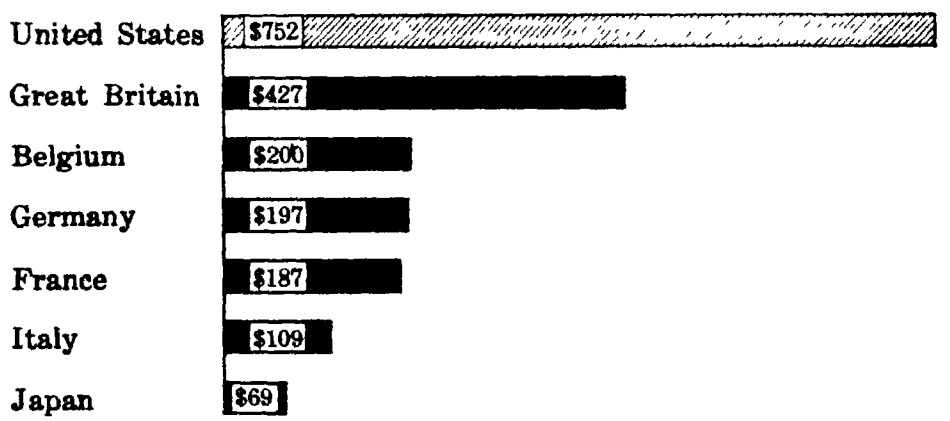


FIG. 7. ESTIMATED INCOME PER CAPITA, UNITED STATES AND OTHER NATIONS

Calculations based on figures of the National Industrial Conference Board and the World Almanac.

wealth and income of a group of leading nations. It may readily be seen that the United States is in the best economic position to support its program of education. However, in spite of the fact that it exceeds all other nations in wealth and income per capita, the percentage of expenditure in the United States for educational purposes is the smallest of the group (Figure 8).[1]

[1] National Education Association, *Investing in Public Education*. Research Bulletin, Vol. VIII, No. 4, September, 1930, pp. 184–185.

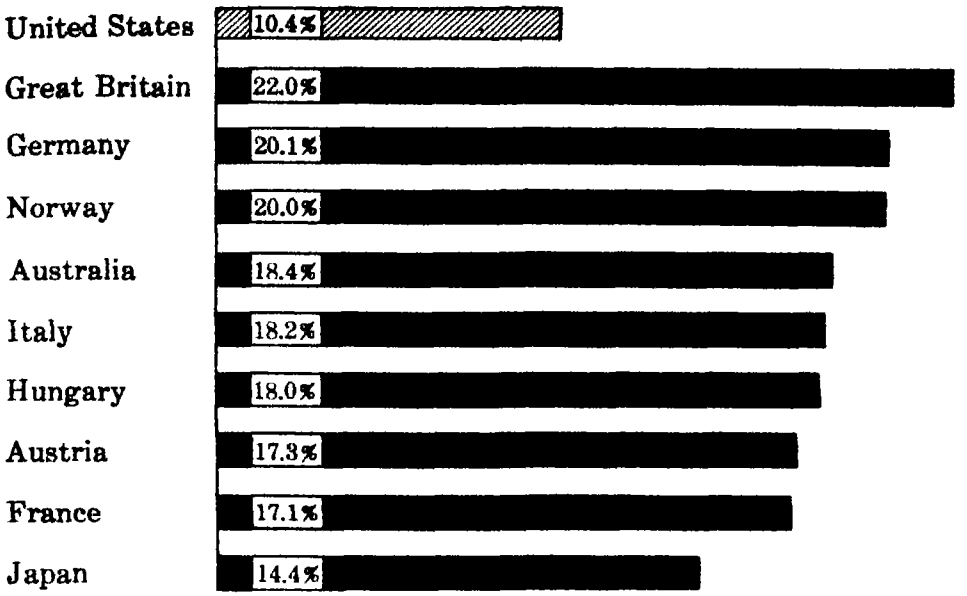


FIG 8. PERCENTAGE OF NATIONAL INCOME EXPENDED FOR ALL PUBLIC PURPOSES

The figures for foreign countries are from the *Literary Digest*, Apr 26, 1930, p 15, and the *Annals of the American Academy of Political and Social Science*, November, 1927, p 40 Figures for the United States are based on figures of the National Industrial Conference Board and the National Bureau of Economic Research.

For what commodities and services do the American people spend their money? This is another factor to be considered. Table VI gives the national bill for certain types of expenditures for the year 1934. Although these figures are more than two years

TABLE VI

THE NATION'S BILL FOR CERTAIN LUXURIES IN 1934[1]

Tobacco	$1,344,000,000
Soft drinks, ice cream, candy and chewing gum	1,229,073,000
Theaters, movies, and other amusements	600,000,000
Toilet preparations and beauty parlor services	314,368,000
Total	$3,487,441 000

[1] National Education Association, *Financing Public Education*, Research Bulletin, Vol. XV, No. 1, January, 1937.

old, they nevertheless give a fair picture of how a large part of the national annual income is spent. A casual inspection of this table shows that over one billion dollars was spent for tobacco alone. The amount of money spent for tobacco, perfumes and cosmetics, amusements, and other luxuries far exceeded that spent for public education. If the American people can afford to spend such a sum for these particular commodities, considered as luxuries by many people, it is apparent that they are financially able to support an adequate program of education.

Ability of the States. States are unequal in their ability to support education. While the differences among the states are not as great as those among local communities, they are nevertheless sufficiently unlike to affect the educational program. These differences are readily seen by comparing the wealth behind each child, the per capita income, and the percentage of taxes spent for education.

Most people will agree that it is much easier for a family having an annual income of $10,000 to spend a given percentage of that income for education than for a family with an annual income of $1,000. Similarly it is probably true that it requires less effort and denial for California with a high per capita income of $975 to spend 4.35 per cent of its income for schools than for Mississippi with a low per capita income of $277 to spend 2.53 per cent of its income for the same purpose.

To provide a given amount of support per child to be educated, some states would have to levy school taxes at a rate five or six times as high as that of other states. This is clearly shown by a comparison between the percentages of the total tax bills spent for education in Delaware and North Dakota. In Delaware, education amounts to 11 per cent of the total tax bill for the state, while in North Dakota it amounts to 52 per cent.

The amount of taxable wealth behind each child to be educated constitutes the basis of educational support. The states are very unequal in this respect. This is illustrated by comparing the amount of taxable wealth in Mississippi with that of Nevada. In Nevada it amounts to $21,582, while in Mississippi it is only

$2,819 for each pupil enrolled in public elementary and secondary schools.[1]

Ability of Local Units. Everything that has been said about the differences in ability of the states to support education is equally applicable to local communities. The differences between local communities are even greater and are often apparent to the average citizen, as a result of his closer contact with different communities. Some communities are wealthy, while others are poor. In New York State the equalized valuation per pupil ranges from $1,000 to over $100,000, with an average of approximately $15,000.[2] In the very poor communities a tax rate equivalent to confiscation fails to provide acceptable school facilities.

A vivid picture of the inequalities in wealth and in educational facilities was presented in a pamphlet issued under the auspices of the Illinois State Teachers Association.[3]

> Just south of Chicago there are two districts, side by side — District 3, Stickney Township, and District 103, Lyons. In one (District 3) there are railroad yards, high property values, and few children. In the other (Lyons) there are workers' cottages, low property values, and many children. The assessed valuation of District 3 is $1,149,912, and there are only 51 children enrolled in the schools. The assessed valuation of Lyons is $890,530, and there are 729 children in the schools.
>
> The tax rate in District 3 is 27 cents, and they have plenty of money. The tax rate in Lyons is $2.67 and they have not enough to run their schools.
>
> In District 3 there is $22,548 of taxable property for each child. In Lyons there is $1,222 — just one-eighteenth as much.
>
> In two other adjoining districts in a different part of the state, the difference is even greater, being $3,800 per child in one district and $86,000 per child in the neighboring one — twenty-four times as much.

The same pamphlet contains a letter from a public-spirited citizen which reads in part as follows:

[1] For the year 1934.

[2] R. Emerson Langfitt, Frank W. Cyr, and N. William Newsom, *The Small High School at Work*, p. 530. American Book Company, 1936.

[3] *The Crisis in Public Education in Illinois.* The Legislature Publicity Committee of the Illinois State Teachers Association, March, 1921, pp. 14–15.

The schools in this end of the county (Macoupin) are in a deplorable condition, and unless the state distributive fund is increased sufficient to help us I can see no hope for the schools in this community. We have children in basements that are injurious to their health and to the health of teachers. We have children stuck in old buildings that have been condemned by the state fire marshal and which violate the state sanitary laws in every particular. The truancy laws are a farce and we can't enforce them for want of room, and you would not know that school was in session, judging by the children that are roaming the street every day.

In Cook County, Illinois, an average school tax of 16 mills produced $2,470 per teacher, whereas an average tax of 24 mills in Gallatin County produced $707 per teacher.[1] In other states, wherever the district system exists, similar conditions may be found.

Sources of School Money

Funds for public school purposes are derived from various sources. Most of the revenue, however, comes from two sources: permanent school funds and taxation.

Permanent School Funds. Following the policy instituted in colonial times, the Federal Government donated out of the national domain certain lands for school purposes. Beginning with the admission of Ohio, lot or section No. 16 of each township was reserved for school purposes. Later, other sections were added and some states augmented their permanent school funds through grants of salt, swamp, timber, and oil lands. It was intended that these lands should be held until they had advanced sufficiently in price, and that they should then be sold or rented; the money thus received was to be placed in a permanent endowment fund that would largely support the schools that would be needed. Some states obtained part of the 5 per cent tax for internal improvements levied upon the sale of public lands, and many shared in the surplus revenue which accrued to the Federal Government from the sale of public lands. The actual disposition of the money derived from these sources is rather hard to ascertain. It is esti-

[1] Fletcher H. Swift, *Federal and State Policies in Public School Finance in the United States*, pp. 102–103. Ginn, 1931.

mated that approximately 1.3 per cent of the national bill for public schools is derived from the income from permanent endowment funds. In some instances the states sold the land and borrowed the money needed for educational purposes, and presumably paid interest, but in reality the interest paid was merely a part of the state's regular legislative appropriation for education.

Taxation. The inadequacy of the permanent endowment funds to provide the money necessary for the support of the schools was soon realized. As early as 1825 the idea of supporting schools on the income derived from land grants, license fees, and permanent school funds was dispelled when it was seen how little was actually received and how rapidly the population was increasing. Leaders realized that only by general and direct taxation on all property could sufficient revenue be obtained.

The Massachusetts law of 1647 was in fact the first law which permitted public property to be taxed for school purposes. Since then numerous laws have been passed by all the states. The constitutionality of many of the laws, especially the earlier ones, was challenged. The Kalamazoo Case which settled the right of a local community to levy taxes for public secondary education is famous in the history of education.

Money derived from public taxes constitutes the major part of the public school funds. In fact, approximately 96 per cent of all monies spent for public education comes from this source. The particular type of tax, however, varies. The Federal Government contributes through special appropriations about one per cent of the amount spent on public education. Most of the 96 per cent, however, comes from taxes levied by the local taxing agency upon local property. It constitutes approximately 75 per cent. The state, through general and special appropriations for education, contributes about 24 per cent of the cost. In some states, however, the part of the state is considerably greater; in others, smaller.

Most of the revenue comes from taxes on real estate and tangible personal property. When the wealth of the country consisted of real estate, the general property tax was accepted almost uni-

versally as the backbone of the taxing system; but since the character of wealth has changed, the property tax is no longer well adapted to the commercial and industrial era in which a large percentage of the wealth is in stocks, bonds, and other forms of securities which are not commonly reached by taxes. It is common knowledge that a large proportion of personal property now escapes taxation altogether. This is often due to the fact that this kind of property can be hidden or removed from the state during the period of property assessment.

Because of the change in the type of wealth, new sources of public revenue have been sought. There has been a definite attempt to find means of locating and taxing wealth or its evidence. Progressive forms of taxation have been devised. Experience with these types of taxes seems to indicate that they are more equitable and better revenue producers than the general property tax. In recent years the more progressive states have developed such non-property taxes as:

1. Liquor taxes (in thirty-three states).
2. Corporate income taxes (in eighteen states).
3. Personal income taxes (in thirteen states).
4. Gross income or sales taxes (in fifteen states).
5. Horse racing taxes (in ten states).
6. Business and occupation taxes (in eight states).
7. Chain store taxes (in seven states).
8. Severance taxes (in seven states).
9. Inheritance taxes (in six states).
10. Tobacco and cigarette taxes (in six states).
11. Poll taxes (in five states).
12. Gasoline and motor fuel taxes (in three states).
13. Gift taxes (in two states).
14. Oleomargarine taxes (in two states).
15. Boxing and wrestling taxes (in two states).[1]

[1] Facts from Swift, *op cit*, p. 132; *Legislative Action in 1933 Affecting Financial Support of Public Education*. United States Office of Education, Circular No. 133 (February, 1934); *Legislative Action in 1935 Affecting Financial Support of Public Education*. United States Office of Education, Circular No. 108 (February, 1936).

Support and the School Unit

Education developed as a local matter and has been financed largely by the local taxing unit. The earlier laws of Massachusetts, which was the first state to provide for a system of public education, directed the local towns to establish schools. In some states the laws provide for the creation of school districts, while in others the town or township constitutes the school unit. These local school units in many states are the taxing units and provide most of the revenue for the education of the children within the school unit. Many have become inadequate to provide the necessary funds for education. The need for larger taxing areas, if educational opportunities are to be in any way equalized, has long been recognized. Legislation has accordingly been passed by many states providing for the reorganization of the school units, and in some instances the states have assumed a large part of the financial responsibility for the educational program.

County as the Unit of Support. Taking the country as a whole, the county is playing an increasingly important rôle in providing school support. In many states the county has been organized as the unit of school administration and support. This is best illustrated by the states of Maryland and Louisiana, in which the county (parish in Louisiana) constitutes a single school district for the support of all schools of the county. Cities such as Baltimore and New Orleans are exceptions. All property within the county is taxed alike for school purposes, and the revenue is spent for all schools of the county, according to their respective needs, on equal bases without regard to the wealth of a community or location of the school. In this way the poorer communities are provided with the same kind of schools as are those in the economically more favored areas. Property, such as railroads, factories, mines, and ports situated in one section of the county, is taxed to educate the children in other sections. A good example of how educational opportunities might be more nearly equalized through the county as a unit of support is illustrated by the situation within one county of Colorado. For this county

as a whole, the average valuation is $2,300 per pupil. The wealthiest district has $26,500 of wealth per child, while in the poorest it amounts to only $600.[1] Through the county system of support the wealth behind each child would be equalized and the support of all the schools adjusted according to the average value per pupil of wealth within the county.

The State as the Unit of Support. All states undertake some measure of support of public education. The major part of the cost, however, is borne by the local unit. Local units, whether represented by the county, town, township, or district, are unequal in wealth and are therefore unable to provide a uniform program of education. Many are dependent upon the state for financial assistance in providing the minimum program set up by the state. Because of their present method of assisting education, most states have not provided means whereby every boy and girl will have equal opportunity for an education. The amount given by most states for public education is inadequate and inequitably distributed.

The assistance consists of legislative appropriations which are often divided into general and special school funds. The general fund is commonly distributed to the local school units according to some uniform basis such as average daily attendance, school census, or teacher-pupil ratio. The special funds are often of two kinds. One is given for the purpose of stimulating local initiative, in which case the state contributes a certain amount of money for special activities such as home economics, agriculture, and commercial training. The other, commonly referred to as an equalization fund, is intended to provide financial assistance to the poorer districts. Often, however, certain conditions to be met by the local district entail the levying of a specified amount of local tax and increase the burden upon the district. This situation prevents many poorer districts from sharing in funds, while the wealthier districts, which are able to meet this requirement, receive the money originally intended for the purpose of equalizing educational opportunities in the less fortunate communities.

[1] Swift, *op cit.*, p 108

For many years there has been a definite trend in the philosophy of education relative to the support of public education. The depression of 1930 and its effect upon the schools made the people more conscious of the need for a larger unit of support. The number of schools that have been closed at some time since 1930, or whose terms have been materially shortened, in many states emphasized the need for a more equitable system of financing education. The inequalities of educational opportunity — so far as the minimum program is concerned — have been definitely met by two states. Delaware, as early as 1921, realized the benefits of greater state aid, shifted the burden of support from the local unit, and established the state as the unit of support. More recently, North Carolina has accepted the doctrine that public education is a state function and has accordingly provided support for its minimum program. Through such a system of financial responsibility every child has equal opportunity of the minimum program of the state regardless of where he may live within the state.

Wealth and local initiative within the respective subdivisions of a state vary to such an extent that no system of local or county financing of education will ever provide equal educational opportunities throughout a state. The state alone has within its sovereign rights the power and means of equalizing its educational opportunities. It can designate itself as the unit of school support and assume the financial responsibility for its minimum program. There are two objections commonly raised against this. First, it is contended that such a procedure would stifle local initiative and that the people of a given area would make little or no effort of their own to augment the educational advantages of the children within their district. This, however, might be charged against any of the systems of state aid which now exist. The second objection is that the state might centralize unto itself all control of education and thus deprive the local units or counties of their local rights. This, however, need not be the situation. As a matter of fact, the state could assume the financial responsibility for the program but leave its administration to the local

areas, provided the minimum standards set up by the state are met by the local administrative unit.

The Financing of Education by the Federal Government. So far the Federal Government has assumed no direct responsibility for public education. It has, however, given financial assistance in numerous ways. Under the Morrill Act, land was given for public school purposes. The Smith-Hughes Act provided for Federal contribution to public schools for certain specific activities such as home economics and agriculture. The Smith-Lever Act provided money for home economics and agricultural agents for county demonstration work. Following the World War, the Smith-Sears Vocational Rehabilitation Act provided money for the vocational education of World War ex-service men.

While the Federal Government has shared in the cost of education through the above-mentioned acts, it has not assumed any direct responsibility. Numerous bills have been introduced in Congress asking the government to appropriate money directly to assist public education. So far all such bills have failed to pass. This has probably been due to two causes. First, it is contended that by granting such aid the Federal Government might seek to supersede state authority in education. This need not be the case since the Federal Government could appropriate the money and distribute it to the states on some equitable basis which would insure an equalized program of a minimum nature in all communities; nor would the Federal Government assume any direct control over education except to insure the proper and equitable expenditure of such monies. Second, some people oppose such a proposal because it would necessitate taxing the wealthier states to help pay the cost of education in the poorer states. This should be considered in the light of the possibilities of education for the country as a whole. If there is a definite desire to give each child in the United States an equal opportunity for education, and if there is a realization that no state is an entity within itself but rather a part of the Union, each state having a responsibility to the others and the Federal Government to all the states, then this argument should have little weight.

The United States is in many ways an educational unit. Economic interdependence, universal suffrage, and a shifting population are as characteristic of the country as a whole as of the individual states. Migration is a matter of common concern to all states. The differences in ability of states to support education are great. While they are not as extreme as those among the districts within the states, there are many inequalities which the states themselves cannot correct — differences in natural wealth, the movement of wealth to larger financial and industrial centers, and its concentration in the hands of a few. The following clearly illustrate some of the problems relating to the support of public education which affect all states and which can be adequately solved only by the financial assistance of Federal Government to public education:

1. There is an important concentration of wealth and income in many cities in the United States.

2. In some states probably as much as half of all the income from property goes outside the state. This income is concentrated in a large degree in a few centers and probably doubles the income from property in those centers. The income from out of the state increases the total income of some communities by as much as 20 or 25 per cent.

3. From one and a half to two billion dollars of the income received by people living in New York State is produced outside the state.

4. Between 20 and 25 per cent of the income received in the state of New York is produced outside the state.

5. In the state of Texas, as a minimum estimate, between 5 and 10 per cent of the total income produced in the state goes to people living outside the state.

6. From 10 to 20 per cent of the wealth of Texas is owned by people living outside the state.

7. From 10 to 15 per cent of the income produced in Arizona is transferred outside the state.

8. From 30 to 50 per cent of the wealth of Arizona is owned by people living outside the state.

9. Chain stores, chain banks, electric power, consolidation and similar developments have probably somewhat increased the concentration of wealth and income. Although the rate of growth of such chains has

been phenomenal, the absolute amount of income transferred by these developments has not been unduly large. If the past rate of growth continues, it will probably become a major factor in the transfer of income from one state to another.

10. The concentration of income and wealth has made more pressing the question of Federal aid to the states.[1]

QUESTIONS, PROBLEMS, AND CHALLENGES

1. What factors contribute to the inequality of financial ability to support education among the states? Among the local school units?
2. What are the arguments for and against the granting, by the Federal Government, of a direct financial assistance to public education?
3. What means are used for the control of the collection and expenditures of school monies?
4. How much does it cost to educate an elementary school pupil? Junior high school pupil? Senior high school pupil? In your community? For the state as a whole?
5. What is the tax rate for schools assessed by your state? Your county? Your local school unit? What per cent is each of the total tax rate?
6. Critically evaluate the newer forms of taxes as discussed in this chapter.
7. How are the colleges and universities of your state supported?
8. What factors determine the ability of a given school unit to support its schools?
9. How does the type of school unit affect the problems of school support?
10. Enumerate specifically the different classes of property which often escape taxation in your state. Why is this the situation?
11. What conditions make it necessary to reorganize the present system of taxation in most states?
12. Should the state pay the total cost of the educational program of the state? How would such a policy affect local initiative?
13. What is the relation between control and financing of education?

[1] *Research Problems in School Finance*, pp. 135–136. National Survey of School Finance. United States Office of Education. American Council on Education, 1933.

14. What bases do states use for the distribution of school monies to local school districts? Your state? Is it equitable in terms of the needs of all communities?
15. Make a study of your local community to determine:
    (a) The contribution of the state to the educational program of the community.
    (b) The percentage of the cost of the local educational program which is borne by the state.
    (c) The cost of educating a pupil for a year in the elementary school; in the junior high school, in the senior high school.
    (d) The cost of educating a pupil for one day.
    (e) The amount of the local school tax. Compare this with the amount of the tax in other communities.
    (f) The average cost per adult for education.
    (g) The highest, average, and lowest salaries paid teachers and other school employees.

SELECTED REFERENCES FOR FURTHER READING

Biennial Survey of Education, 1930–32. United States Office of Education, Bulletin 1933, No 2

Biennial Survey of Education, 1933–34 United States Office of Education, Bulletin 1935, No 2.

Leslie L. Chism, *The Ability of the States to Support Education.* Bureau of Publications, Teachers College, Columbia University, 1935

Aubrey A. Douglass, *The American School System*, Ch. II. Farrar and Rinehart, 1934.

Jens P. Jensen, *Property Taxation in the United States.* University of Chicago Press, 1931

R. Emerson Langfitt, Frank W Cyr, and N. William Newsom, *The Small High School at Work*, Ch. XXV. American Book Company, 1936.

Henry C. Morrison, *School Revenue.* University of Chicago Press, 1931

National Advisory Committee on Education, *Federal Relations to Education.* American Council on Education, 1931.

National Education Association, *Can the States Afford to Educate Their Children?* Research Bulletin, Vol. VII, No. 1, January, 1929.

—— *Facts on School Costs.* Research Bulletin, Vol. X, No. 5, November, 1932.

National Education Association, *Investing in Public Education.* Research Bulletin, Vol. VIII, No. 4, September, 1930.

—— *The Efforts of States to Support Education.* Research Bulletin, Vol. XIV, No. 3, May, 1936.

Research Problems in School Finance. National Survey of School Finance. United States Office of Education, 1933.

Fletcher H. Swift, *Federal and State Policies in Public School Finance in the United States.* Ginn, 1931.

CHAPTER X

THE INDIVIDUAL AND THE EDUCATIVE PROCESS

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The discussion up to this point has developed the nature of education in the rapidly changing civilization in which we live, and has shown how education seeks to interpret social life to the maturing individual and fit him to advance society as well as to conserve it. Before turning to an analysis of the individual, let us sum up the more pertinent concepts that have paved the way for such analysis: namely, (1) that education is both an individual and a social process; (2) that the community is but one of the many social groups that environ and educate the individual; and (3) that fruitful educational aims are the goals by which individual and societal growth are harmonized.

In this chapter the reader's attention is focused on the individual as the unit of the educative process, on the nature of his relationships to social groups both large and small, and finally on the "central place" of personality development and freedom among the goals of education. In a democracy, the individual is society "writ large," and the growing child becomes the focus around which educational practices and reforms are centered. As Dewey says, "The child becomes the sun about which the appliances of education revolve; he is the center about which they are organized."[1] A frequently heard paraphrase of the Great Teacher's words is that the school is made for the child, not the child for the school.

[1] John Dewey, *School and Society* (Revised), p. 35. University of Chicago Press, 1915.

Perhaps, however, we should remind ourselves at this juncture that in many historic and even contemporary societies the needs and ambitions of the individual have been largely if not completely submerged. Recently several European national leaders have made it clear that they hold to the view of complete subordination of the individual to the state. It is easy to see how essential is some such view if men are to be prepared in mind and body for future wars of conquest. It is hard to think that liberty-loving Americans would ever change from the slogan "society for the individual" to that of "the individual for society."[1] Yet there are some leaders and groups in contemporary America that, perhaps unwittingly, perhaps selfishly, talk much the same language as European dictators. Fortunately, however, a determined group of American educators and civic leaders are recalling to American youth the principles of democracy underlying that time-honored slogan: "Life, liberty, and the pursuit of happiness."

Interrelation of the Individual and Society

By society, as applied to human beings, is typically meant the association of persons, of individuals, in some manner or other. There is the concept of the Great Society — in reality an abstraction — composed of men everywhere, past, present, and future. Man has created great, relatively fixed social institutions, such as the home, the church, and the state, and also innumerable relatively temporary groups — communal, professional, school, business, and social. Increasingly, man binds himself to all sorts of groupings, until one of the outstanding traits of modern man is this "joining" habit. Thus, in recognizing his interdependence, he seeks independence, or at least self-expression. The permanency of his associations will be determined by the quality and scope of the common interests, ideals, and activities that engage the membership.

Effect of Group Life. What is the relation of this tendency to the development of man's individuality and personality? In

[1] Cf. William H. Kilpatrick, *Source Book in the Philosophy of Education*, pp. 224–226. Macmillan, 1934.

answer, Dewey suggests that individuality is not so much a gift as it is an actual creation of associated or group living.[1] The essential truth of this can readily be grasped if in imagination we try to lop off from our own experience the educative influence of the dominant social groups to which we have belonged, such as the family, the school, the church, and the neighborhood, as well as the influence of the more transient groups. In doing this, one perhaps realizes, as never before, that individualization and socialization are but two sides of the same process of human development and growth. Kant, the great German philosopher, implied this when he said, "Man cannot get on with his fellows and he cannot do without them." [2]

Carrel expresses this relationship with reference to the constructive duty of the school and other educative agencies as follows:

> We must rescue the individual from the state of intellectual, moral, and physiological atrophy brought about by modern conditions of life. Develop all his potential activities Give him health. Reëstablish him in his unity, in the harmony of his personality Induce him to utilize all the hereditary qualities of his tissues and his consciousness. Break the shell in which education and society have succeeded in enclosing him. . . .
>
> Each individual has the power to modify his way of life, to create around him an environment slightly different from that of the unthinking crowd. He is capable of isolating himself in some measure, of imposing upon himself certain physiological and mental disciplines, certain work, certain habits, of acquiring the mastery of his body and mind. But if he stands alone, he cannot indefinitely resist his material, mental, and economic environment. In order to combat this environment victoriously, he must associate himself with others having the same purpose. . . .[3]

Need of Balanced Program. The most desirable procedure for the school should be a happy admixture of socializing and individualizing activities. The traditional school, by setting each

[1] John Dewey, *Reconstruction in Philosophy*, p 198 Holt, 1920.

[2] William H. Kilpatrick, *Source Book in the Philosophy of Education*, p. 149. By permission of The Macmillan Company, publishers.

[3] Alexis Carrel, *Man, the Unknown*, p. 293 Harper, 1935.

individual against his neighbor, developed individualistic tendencies hostile to the child's complete development and happiness, both in school and in later life. The ultra-progressive school, with its stimulating socialized and socializing program, needs to take care that the individual child be given the required isolation to allow opportunity for creativity and self-direction. Both schools must heed the warning of McDougall:

> The American child, who too often is already, through lack of wise parental care and companionship, a hard self-seeking individualist, is in danger of being made into a ruthless savage wholly given up to the pursuit of material goods and pleasurable excitements.[1]

Education in mutual understanding, tolerance, service, and cooperative living will never be old-fashioned. One further warning must be sounded: namely, that the school make abundant provision for the exceptional and talented child, lest his contribution to society be diminished by his formal education instead of being enhanced thereby. Democracy dare not overlook the education of its potential leaders.

Integrity of the Organism

In considering the nature of the individual and his adequate education, attention should perhaps first be called to a type of thinking which, while it may have been important in the history of thought, is now outmoded and works harm. That notion is the persistent tendency to divide mind from body, the mental from the physical, as though it were possible for mind to exist without body, or body without mind. Space does not permit a discussion of the various theories by which psychologists, physiologists, and philosophers have sought, in the last few hundred years, to put together again what has been sundered; suffice it to say that none of them has won anything like a majority of possible adherents among interested men of science.

Unity of Organism. A man, an individual human being, cannot be separated into parts. If he could be, he would not "work"

[1] Quincy A. Kuehner, *A Philosophy of Education*, p. 332. Prentice-Hall, 1935.

any more than a machine so separated would perform its usual and expected functions. But, just as we continue to say that "the sun sets" or "the sun rises," we shall continue to use such abstract terms as *body*, *mind*, *soul*, *consciousness*, *behavior*, and the like when we try to designate some function of the unified human organism.[1] Dewey makes the helpful suggestion that *mind* is a suitable term to designate the work performed by the protoplasm located in the brain and central nervous system.

Relation of Physical and Psychical. The physiologist reserves as his territory for exploration such human functions as digesting, reproducing, moving about, inhaling, and excreting. The psychologist choses such functions as perceiving, remembering, thinking, comprehending, understanding, and evaluating. These distinctions are qualitative, matters of degree and emphasis. Dewey says in this connection:

> The being who eats and digests is also the one who at the same time is sorrowing and rejoicing; it is a commonplace that he eats and digests in one way to one effect when glad, and to another when he is sad. Eating is also a social act and the emotional temper of the festal board enters into the alleged merely physical function of digestion. Eating of bread and drinking of wine have indeed become so integrated with the mental attitudes of multitudes of persons that they have assumed a sacramental spiritual aspect. There is no need to pursue this line of thought to other functions which are sometimes termed exclusively physical. The case of taking and assimilating food is typical. It is an act in which means employed are physical, while the quality of the act determined by its consequences is also mental. The trouble is that, instead of taking the act in its entirety, we cite the multitude of relevant facts only as evidence of influence of mind on body and of body on mind, thus starting from and perpetuating the idea of their independence and separation even when dealing with their connection. What the facts testify to is not an influence exercised across and between two

[1] Bridgman uses the term "operational concept" for such notions, in order to contrast them with the concrete concepts which have reference to definite experiences of a perceptual nature. Judd's term, "scientific constructs," serves the same purpose.

separate things, but to behavior so integrated that it is artificial to split it up into two things.[1]

Science Tends to Become Synthetic. Science finds it cannot go far in the pursuit of knowledge in a given area until by analysis it identifies its specialized problems. This makes of science an abstraction, but today there is a very promising and hopeful tendency of many scientists to see the need of synthesis of the work of the specialists. Such a book as that comprehensive treatment, *Man, the Unknown*, by Dr. Alexis Carrel, is one indication. Spreading from Vienna through Europe to America is a movement known as the Unity of Science — a movement which bids fair to unify the individual in our thinking as Descartes's dualism tore him apart three hundred years ago. The chemist, the physicist, the biologist, the anatomist, the hygienist, and the psychologist must all pool their contributions if the parent and the teacher are to know how best to guide growing children.

It is with this view that Dr. Carrel writes as follows:

> The individual whose potentialities are all actualized does not resemble the human being pictured by the specialists. He is not the fragments of consciousness which psychologists attempt to measure. He is not to be found in the chemical reactions, the functional processes, and the organs which physicians have divided among themselves. Neither is he the abstraction whose concrete manifestations the educators try to guide. He is almost completely wanting in the rudimentary being manufactured by social workers, prison wardens, economists, sociologists, and politicians. In fact he never appears to a specialist unless this specialist is willing to look at him as a whole. He is much more than the sum of all the facts accumulated by the particular sciences. We never apprehend him in his entirety. He contains vast unknown regions. His potentialities are almost inexhaustible. Like the great natural phenomena, he is still unintelligible. When one contemplates him in the harmony of all his organic and spiritual activities, one experiences a profound esthetic emotion. Such an individual is truly the creator and the center of the universe.[2]

[1] John Dewey, *Philosophy and Civilization*, p. 303. Minton, Balch and Putnam, 1931.

[2] *Op. cit.*, pp. 268–269.

Changing Classroom Procedures. For the present we shall find it necessary to resolve the old dualism of mind and body. Temporarily it may be necessary to use such clumsy terms as *mind-body*, *body-mind*, and *organism-as-a-whole*. Modern psychology, especially through the newer Gestalt and organismic schools, is paving the way for the consideration of the whole child. Such conceptions should rapidly affect our classroom teaching, testing, and management. Teaching built around experience units and large activities is already demonstrated to be making real gains in this direction. We may well close this discussion with the quotation of a slogan from Kilpatrick: "the welfare of the whole child ever growing in wholesome relationship with all others."[1]

Man as an Adaptive Organism

Adjustment Universal. Dewey points out that the distinction between living and non-living things is that the former have needs, put forth efforts to satisfy these needs, and experience corresponding satisfaction.[2] Inanimate objects and immobile animate beings such as the plants are continually adjusting at the physico-chemical level, humans, as well as other animals, adjust at the higher biological and intellectual levels. Beginning in the prenatal stage, the human organism finds it necessary to adjust first to the physiological and physical environment, and then after birth to the demands of an increasingly complicated and complex social environment, much of which is of his own making. Having a relatively delicate body, man's whole organism is attuned to each new situation as it arises. The individual becomes the product, not the sum, of environmental and hereditary factors. Gray has effectively pointed this out in the following statement:

> No trait, either of behavior or of structure, can be attributed to inheritance exclusive of environment, or to environment exclusive of inheritance. The genes, or workmen, come by way of inheritance, but

[1] William H. Kilpatrick, *A Reconstructed Theory of the Educative Process*, p. 30. Bureau of Publications, Teachers College, Columbia University, 1935.

[2] John Dewey, *Experience and Nature*, pp. 252 ff Open Court Publishing Company, 1926.

the environment, or the engineers and bosses, immediately assume control of their behavior. There is a single rather than dual source of organic structure. This is neither heredity nor environment, but the two in closest amalgamation. Let us call it *heredivironment.*[1]

All development, growth, life, come about through adjustment or adaptation, which means the active participation of both the organism and its environment. The scope, means, and phases of this adjustment are admirably set forth in the following statement of Dr. Crile, which includes thinking, language, emotions, and the whole gamut of psycho-physical life:

In the texture and form of his bones and joints; in the structure and distribution of his muscles; in the covering skin and the padding fat; in the nature and distribution of his nails and hair; in the structure and equipment of the mouth, the stomach, and the intestines, of the kidneys, ureter, and bladder, and of the organs for procreation and respiration; in the composition and circulation of the blood; in the distribution of pain-ceptors, and of the defense mechanisms against dust, débris, and insects, against cold and heat, and against infection and bleeding; in the mechanisms for appreciating sound and light, color and form; in the mechanisms for taste and smell, for maintaining an even body temperature, for producing muscular action and for expressing the emotions; in the nature and incidence of laughter and weeping; in the chemical defense against bacterial invasion and against the poisons of pregnancy and auto-intoxication; in the mechanisms of conception, of pregnancy, and of birth; in the fabrication of thought; in the mechanisms of communication by natural, spoken, and written language; in health and in disease — in the complete life cycle of the individual from conception to death we see clearly here and dimly there the mechanisms by means of which a sensitive being immersed in a hostile environment effects survival — we see man — an adaptive mechanism.[2]

Adjustment vs. Maladjustment. From this point of view, the function of education is to supply the ways and means whereby adequate adjustments can be made. Other writers use somewhat

[1] From J. Stanley Gray's *Psychological Foundations of Education* (American Psychology Series), p. 67. Copyright, 1935. Used by permission of American Book Company, publishers.

[2] George W. Crile, *Man, an Adaptive Mechanism*, pp. 378–379. By permission of The Macmillan Company, publishers, 1935.

different terminology. For example, Raup calls this condition of adjustment "complacency," founding it squarely upon the tendency to equilibrium in all nature.[1] He holds that the learning process is characterized by three rather well defined steps: (1) a disturbance of complacency or equilibrium in the organism; (2) steps toward its reduction, whether in action or thinking; and (3) whatever repetition may be required to fix the learning.

Moss, Dashiell, and others have found that rats under tension (disturbance of equilibrium, or lack of adjustment) due to hunger, sex stimulation, need of care of young, and so forth, will seek out and choose that goal which best relieves the organism's tension.[2] This enables us to see that many so-called disciplinary situations which children create in school are directly the result of the child's effort at better adjustment. It indicates also that, whereas the school and home often either cannot or do not create the right conditions for desirable adjustments, maladjustments arise, often resulting in various personality quirks and disturbances of a more or less permanent sort. Some of the enemies of proper adjustment to the child are overstimulation, worry, fear, noise, maladjusted teachers, school marks, frequent tests and examinations, excessive written work, and so forth. When the school recognizes the importance of adjustment, it will markedly remake its whole program. Then the emotional phases of growth will assume their rightful place, and present trends toward standardization will slowly give way to the recognition of individual needs and "goods."

Illustration. A sixth-grader of good intelligence was deficient in spelling and writing. He had such a serious speech defect that it was difficult even for his mother to understand him. He could read, but he did not know the sounds of words to aid him in their spelling and pronunciation. By teaching him to make use of his visual imagery, to study individual words carefully, and to follow a set of prepared directions, he made decided improvement. But

[1] Cf. Bruce Raup, *Complacency, the Foundation of Human Behavior*. Macmillan, 1926.

[2] Raymond H. Wheeler, *The Science of Psychology*, pp. 258–260. Crowell, 1929.

his next teacher failed both in interest and understanding of the boy's problem and he dropped back largely to his former maladjusted status.[1] Only as we abandon in our educational procedures the ideals of the factory and the shop with its standardized products, and seek to personalize and individualize education, can anything like suitable adjustment be made by children in school.

Differences and Likenesses among Individuals

Each Individual Unique. In all lines of science and everyday activity there has been a tendency to minimize the wide ranges of individual differences, often to ignore them, sometimes to seek to stamp them out. The home has standardized child feeding and training; the school has standardized the curriculum, materials, and procedures; medicine has standardized the dosages for diseases; and the church has standardized the means to salvation and spiritual regeneration. It is therefore of great significance that Dr. Carrel, out of a broad experience and wide researches and study, has brought together the data to show the absolute uniqueness of each individual.[2] He notes that all parts of the organism, including the organs, the skin, and the blood, are so distinctive that the effects of skin grafting, gland grafting, and blood transfusion have often been nullified by nature. Individuality puts its stamp on every item of the organism. Themselves the products of cell union, in which the chromosomes and genes combine with infinite diversity, no two individuals can be alike at the outset. Immediately environment and organism begin an interplay that heightens the unlikenesses, such that even identical twins, when they are brought up in widely differing environments, soon show relatively great differences.

Sources of Individual Differences. An analysis of individual differences, which apparently have their origins in hereditary

[1] Ernest R. Wood, "Subject Disabilities," in Charles E. Skinner (Ed.), *Educational Psychology*, pp. 539–541. Prentice-Hall, 1936.

[2] *Op. cit.*, pp. 235–273.

make-up, shows that not only the family or near ancestry, but also sex and race make their contributions. The ability to learn, and special aptitudes in art, music, and mechanical activities, illustrate some of these inherent potentialities or handicaps. Environment, coöperatively or competitively, provides other factors, such as home experiences, schooling, disease and health, sleep and diet. By the time children enter school, and increasingly throughout the grades and higher ranges of school work, these differences are so marked as to cause each individual to stand out as a unique problem. Some will be so far below the normal range of abilities on the mental side as to need special treatment in classes or schools for the handicapped; others, at the other extreme, will show special talents or near-genius ability and call for similar special provisions.

Testing for Differences. Such observations and studies as have been made since the opening of the twentieth century have led to the widespread use of two types of standardized tests: (1) intelligence or psychological tests to determine as far as possible the potential development of the child, and (2) achievement tests to determine the levels of learning he has reached in the various school subjects or abilities. An early critic of the testing movement, Miller, has pointed out that children with the same total test scores may yet be very different and that a group of children with IQ's (intelligence quotients) of 150 might differ as follows:

> Some of these hundred children would be very courteous, some very discourteous; some would make excellent scholarship records, some poor; some would be industrious, some lazy; some would display high moral ideals, some low; some would be interested in music, some in art, some in business, some in radio, some in aviation; some would be indifferent; some would be sweet-tempered, some ill-tempered; some loquacious, some taciturn; some docile, some aggressively rebellious; some timorous, some bold; some under weight, some over; some tall, some short; some proud and haughty, some timid and humble; some given to routine; some disliking chores; some graceful, some awkward; etc.[1]

[1] Harry L. Miller, *Creative Learning and Teaching*, pp. 208–209. Scribner, 1927.

Through the critics and through more careful devising and using of these tests, their functions have steadily changed and will continue to change. Whereas, at the outset, it was thought that a most important value might be the separation of children into groups based either on their intelligence ratings or on their achievements as measured by tests, today it is believed that the needs of the children and of democratic society are better served by some plan for the enrichment of the work in quite heterogeneous groups. In this procedure, children are given varied activities and responsibilities in a group project, thus enabling them to make a contribution to their own development and to the group living and enterprises.

Likenesses among Individuals. It would be unfortunate if, in calling attention to the differences existing among individuals, we did not point out their resemblances and likenesses, as it is upon these factors that much of the stability of institutions and society depends. Gray suggests two very important similarities: "susceptibility to leadership," and "susceptibility to egocentric interests."[1] The tendency to follow or to accept leadership probably comes about in man from the relatively long period of dependence and helplessness compared with lower animals. Crowd activities, adherence to custom and convention, and sensitivity to public opinion are aspects of the first tendency. Law is the crystallization of custom for the purpose of enforcing accepted responses — as, for example, monogamous marriage in Western civilization. In school, home, and other institutions youth needs to be led to see the value of following good leaders in matters of health, religion, and politics. By "susceptibility to egocentric interests," Gray has in mind the fact that individuals are primarily interested in themselves and their own needs, as shown even in many apparently altruistic activities. We may add to Gray's list some of the common habit trends seen in children: curiosity, acquisitiveness, gregariousness, mental and physical activity, social approval, mastery, fear, sex attraction, and play. All of these tend to similar, though not by any means identical, patterns of

[1] *Op. cit.*, pp. 228–239.

behavior in children. The teacher clearly needs to recognize the fact that human beings are both very different and yet, in many ways, much alike, so that his teaching and management procedures may progress to the ends of the service of the individual and of society.

Personality Development, a Major Goal in Education

Factors in Personality. We have tried to make clear that it is not individualism, but individuality or personality, which counts in building society. While it appears quite impracticable in the welter of available definitions of personality to select one suitable to various needs, for our purpose in this brief survey it may be said that by personality is meant the unique traits or characteris of a given individual. Since we are many things to many people at many times, personality itself is ever changing, but because it represents those variations that give rise to differences of one individual from another, there is a permanence about it as well. The elements that go to make up personality are legion: the chemistry of one's blood and glands, physical make-up, intellect, motives and interests, attitudes and habits. If we accept the building of personality as a major goal in education, the subsidiary goals and activities must fit into that pattern.

Dangers of Standardization. A persistent danger of institutions is their neglect of personality or their attempts to thwart personality. History is replete with incidents that show how the thinker and innovator have been punished for their contributions, but very often honored in later generations. In the anxiety of the home, school, church, and state that the stamp of the family, or of existing culture or religion, be placed upon the child, standardized personalities have resulted. Democracy has too often, in spite of its creed, "equality of opportunity," failed in no small measure as it has brought the level of learning down to the average, and has neglected to develop its intellectually élite. More recently industrialism and technology, coöperatively with the huddling together of people in cities and the general mechanization of their lives, have carried the principles of mass production and me-

chanical efficiency over into the arts of citizenry and personality. At present there seems some rift in the clouds as our philosophers have taken up the case for creativity and individual growth.[1] The church by its attention to God as person, the state in its concern with security for the unfortunate, and the home and school with their emphasis upon development and growth, indicate a new orientation and present a hopeful sign. It remains to be seen whether a civilization can and will put into practice the lessons it already has available regarding the sacredness and worth of personality — in fact will see their necessity to a future where war and industrial exploitation are outlawed.

The Task of the School. It is not enough to set forth the goal. The growth of personality begins in the cradle. The infant has in him many possibilities. The central problem as viewed by current psychology seems to be to retain the natural integration of the infant and build higher and more significant integrations as the work of the school, home, and other institutions impinges upon the child. If the home is wisely organized, the child comes to school prepared to make decisions and choices, to live with others, and to set up goals of action and follow these through to conclusions in activity or thought. The school must see to it that the classroom conditions, the spirit and temper of its work, the quality of its instruction and instructors, carry on and do not retard this progress. The integrated person acts as a whole. He is adjusted emotionally as well as intellectually, socially as well as physically. Such an individual becomes possible only through expert educational engineering, which takes into account not only the school but also the whole array of forces which play upon human beings in the complex and ofttimes hostile age.

The Need of Human Freedom

The Struggle for Freedom. This discussion would be incomplete without reference to the nature and limits of human freedom. The pages of history are replete with incidents of man's struggle

[1] Cf. Lawrence P. Jacks, *Revolt against Mechanism.* Macmillan, 1934.

to win freedom — physical, intellectual, political, economic, social, and religious. The struggle will never be ended, for each new era brings new interests and problems, and new threats to freedom already achieved. A glimpse at the political map of Europe at the present shows the rapid decline of democracy and of political freedom in the past decade. Some of those who champion the cause of business against government in the United States appear to be seeking similar ends. Economic freedom for the masses of men and women, who are the laborers of the world, and who work in the great mines and industrial plants, is far from realization. Intellectual freedom has recently been denied many a teacher in high school and college when economic issues were under discussion, and in the recent past there has sprung up a body of legislation tending to throttle the freedom of thought and speech of the teacher and pupil alike. This has caused an acute critic of American life to remind us that in the past society has been harder on its thinkers than on its criminals.

Meaning of Freedom. What is freedom? What, specifically, is its part in the better realization of the individual's contribution to society? The naïve view of freedom is that it is lack of restraint, the right to do what one pleases. Such a view is negative and limited. The babe has little freedom, since he knows not what he wants. The traditionalist in any field has little freedom, since his habits of action and thought have become mechanical. Freedom is a result of growth in the making of choices, in self-expression, in the exercising of initiative. Freedom has to be earned, to be won, to be steadily acquired over a period of time through effort and self-discipline. Once acquired to any degree, it places upon the possessor a new responsibility. If we look at the intellectual sphere, one acquires freedom as he is encouraged to think things through for himself, and as he gains self-confidence in a given course of action. This requires coöperation with superiors and equals. Those who are like-minded must offer him a challenge. Nor will freedom fail to atrophy with disuse. Miller suggestively states that freedom "ceases to be when it ceases to be a *becoming*."[1]

[1] *Op. cit.*, p. 191.

Dewey has packed a whole philosophy of freedom, in particular of intellectual freedom, into the following statement: "Freedom means essentially the part played by thinking — which is personal — in learning: it means intellectual initiative, independence in observation, judicious invention, foresight of consequences, and ingenuity of adaptation to them."[1]

Education for Freedom. If democracy is to be refined and made more real in American life, if the individual is to make his full contribution to society, if the personalities of children are to be so well integrated as to remain such during adulthood, if individual differences are to be treated as assets and not as liabilities, genuine freedom must be encouraged in the school and fostered by co-operating institutions. At the outset the concept of physical freedom demands that the child be relieved of diseased tonsils, infected teeth, and such other organic handicaps as greatly short-circuit his growth. He must be taught to become master of his emotions lest they master him. He must be educated to think clearly and fearlessly, to be critical of his times and to judge between propaganda and enlightenment. He must have opportunity to work and to enjoy life as well as to vote. With that opportunity must go such reward as will make possible security in the dark days of unemployment, sickness, and old age. With all this he must learn to thwart those assaults that constantly threaten freedom of the press, of speech, and of religion — directly through unwise legislation and misdirected "patriotic" organizations, as well as indirectly through the yellow journalism. This is the task of education, both in and out of school, for child and adult alike, that each may be given the capacity and will to intelligent self-direction always in vital coöperation with his fellows.[2]

[1] John Dewey, *Democracy and Education*, p. 352. By permission of The Macmillan Company, publishers, 1916.

[2] Cf. John L. Childs, *Education and the Philosophy of Experimentalism*, pp. 135 ff. Century, 1931.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. Contrast specifically the relations of the individual to the state in Russia, Italy, Germany, and the United States.
2. Select such an organization as the Ku Klux Klan, or some other type — for example, the Daughters of the American Revolution or the American Legion — and note how their goals include the patterning of the minds of Americans.
3. How can the teacher in the classroom provide activities that at the same time offer preparation in socialization and in individualization? Illustrate.
4. Distinguish between personality, individuality, and character, illustrating from schoolroom situations. What are important personality traits that the school should seek to develop?
5. Locate illustrations to show the ill effect on a pupil's adjustment, in school or after he has finished, of some such factor as the teacher's personality, examinations, or a subject for which the pupil had little preparation and aptitude.
6. List specifically some ways to provide genuine freedom in the home, as against spurious freedom.
7. Study the purpose, strengths, and weaknesses of some plan for individualizing instruction, such as the Dalton Plan or the Winnetka Plan.
8. List some of your own needs in personality development if you expect to become an effective teacher.
9. What have been some of the results of the overspecialization in higher education? Should the elementary school seek or shun specialization? The secondary school?
10. Suppose you were employed in a relatively traditional school. In that case, how would you expect to find the theory of life and education as expressed in this chapter subject to compromise or modification, in order that you might secure harmonious working relations with conservative superiors?

SELECTED REFERENCES FOR FURTHER READING

William C. Bagley and John A. Keith, *An Introduction to Teaching*, pp. 180–208. Macmillan, 1924.

Harry J. Baker and Virginia Traphagen, *The Diagnosis and Treatment of Behavior-Problem Children*. Macmillan, 1936.

Madison Bentley, *The New Field of Psychology*, pp. 3–31, 353–365. Appleton-Century, 1934.

Alexis Carrel, *Man, the Unknown*. Harper, 1935.

John Dewey, *Philosophy and Civilization*, pp. 233–248, 299–317. Minton, Balch, and Putnam, 1931.

John M. Fletcher, *Psychology in Education*, pp. 469–496. Doubleday, Doran, 1934.

Frank S. Freeman, "Individual Differences: Their Nature and Causes," in Charles E. Skinner (Ed.), *Educational Psychology*, pp. 389–434. Prentice-Hall, 1936.

Walter J. Gifford and Clyde P. Shorts, *Problems in Educational Psychology*, pp 465–617. Doubleday, Doran, 1931.

William H. Kilpatrick, *A Reconstructed Theory of the Educative Process*. Bureau of Publications, Teachers College, Columbia University, 1935

—— *Remaking the Curriculum* Newson and Company, 1936.

—— *Source Book in the Philosophy of Education*, pp. 96–161. Macmillan, 1934.

Quincy A. Kuehner, *A Philosophy of Education*, pp. 167–193. Prentice-Hall, 1935.

Francis F. Powers, "Social Growth and Character Formation," in Charles E Skinner (Ed.), *Educational Psychology*, pp. 222–249. Prentice-Hall, 1936.

Bruce Raup, *Complacency, the Foundation of Human Behavior*. Macmillan, 1926.

Frank W. Thomas, *Principles and Technique of Teaching*, pp. 351–367, 386–402. Houghton Mifflin, 1927.

Robert S. Woodworth, *Psychology*, pp. 135–178. Holt, 1934.

CHAPTER XI

THE NATURE OF LEARNING

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The preceding chapter has paved the way for a study of learning by establishing certain important generalizations that are basic to the learning process: (1) that the individual and his environment are inseparable, particularly as regards the human-social phases of his environment; (2) that the human organism must be conceived as a whole and not as a bundle of dissociated parts; (3) that the highest form of human adjustment or adaptation lies in the realm of personality; and (4) that individual differences and likenesses are determining factors in the rate, quality, and varieties of learning that take place.

The Concept of Learning. Learning occupies the central place in the educative process. Indeed, to distinguish between learning and education is an academic problem except, perhaps, in so far as learning is conceived as the more formal and technical aspect of education. In modern education, also, we hear continually of the importance of experience. Most writers who lean to the progressive point of view hold that genuine learning is identical with experiencing. Furthermore, when growth is taken as the ultimate goal of education, as has been done under the leadership of Dewey, we find first that this meaning illuminates the concept of learning, but on second thought it appears that growth and learning are close synonyms. From this discussion it becomes evident that the learning process is much broader than many have conceived it to be, broader than the more or less common traditional procedures, which center in memorizing and drill. So conceived, learning goes beyond the years of formal schooling, beyond

the efforts of the teacher in the classroom, and spans the whole life of the individual.

Learning as Distinct from Maturation and Exercise

Learning and Maturation. The development of the human embryo takes place not only according to the laws of growth and the specialized trends in the genes and chromosomes bequeathed by the parents, but also under the direction of such environmental influences as quality and kind of nutriment, body warmth of the mother, and effects of drugs and disease. After birth the same hereditary factors function, but the environment is broadened to include the human-social elements. To quote Woodworth, "development consists of the unfolding of heredity by environment." [1] Learning may be said to begin, to a limited extent, before birth, and goes forward on the "waves" of maturation. It is not strange or unfortunate if the parts played by these two, learning and maturation, cannot be disentangled completely in any analysis of human conduct. Although we are apt to speak of a child's learning to walk, experiments with young children, as well as observations of other animals, suggest that we should more accurately say he matures to walk. Young birds of the partridge varieties begin running with bits of shell on their backs. Birds confined up to a certain point will fly without training when released. Interesting experiments with identical twins prove that when one is given an opportunity to learn a rather complex act such as stair-climbing, and the other is kept both from having the experience and from observation of the act, the latter in the course of a short time climbs about as well without the actual learning experiences.

Part Played by Maturation. It appears, therefore, that we should modify our typical theory and add maturation to heredity and environment as providing the three bases for learning. *Maturation* is a somewhat more limited and specific term than *growth*, *development*, or *experience*, which may and do include learning. It means such direction of the organism as is the result of suitable nourish-

[1] Robert S. Woodworth, *Psychology*, pp. 158–179. Holt, 1934.

ment and opportunity for native structures to function normally. Maturation, therefore, is not completed before manhood and womanhood. Many adolescent traits so puzzling to parents are the direct or indirect offshoot of normal maturing. Many times a parent who is worried over a childish or youthful break from the common run of activities needs only to wait for nature, and not to think that overnight the child has unlearned years of education. It has also become evident now that ofttimes the school has set many tasks too early — as, for example, handwriting, reading, and other elementary skills — before the structures involved are properly developed for learning to be other than a stillborn set of functionless activities. Bénézet, in his experiments, finds that most formal arithmetic can be postponed until the sixth and seventh grades.[1] He has thus given an excellent illustration of normal growth in the intellectual field.

Factor of Exercise. If we add to growth or maturation the elements of exercise and of disuse, we lay another step in the path of preparation for a consideration of learning. The first efforts of the babe to walk, to vocalize, and to feed himself illustrate the needs that developing structures have of practice or use. Maturation requires exercise and practice, but neither exercise nor maturation should be thought of as learning. In these preliminary phases of growth we have the chemical and physiological groundwork laid without which the organism would be subnormal and incapable of learning In fact, gaps in these are among the most serious stumbling blocks to the work of formal education. Furthermore, we must also bear in mind the position taken in the earlier discussion that the organism tends to act as a whole. This would apply both to normal growth and to learning.[2]

[1] Louis P Bénézet, "The Story of an Experiment in the Teaching of Arithmetic," *Journal of the National Education Association*, Vol XXIV (November, 1935), pp. 241–244, 301–303; Vol. XXV (January, 1936), pp. 7–8.

[2] Woodworth, *op cit.*, pp. 158–178. Raymond H. Wheeler, *The Science of Psychology*, pp. 319–325. Crowell, 1929. Cf. also. Edward L. Thorndike, *Fundamentals of Learning*, Teachers College, Columbia University, 1932; Charles E. Skinner and Associates (Eds), *Readings in Educational Psychology*, Farrar and Rinehart, 1937; and Raymond H. Wheeler and Francis T. Perkins, *Principles of Mental Development*, Crowell, 1932.

Divergent Views of Learning

To the beginning student of any psychological problem such as learning, a puzzling situation is presented by the wide divergence of views held by different schools of psychology. One is reminded of the old folk tale of the elephant and the blind men. One man felt the elephant's side and thought him to be like a wall; another, his trunk, and thought him to be like a tree; another, his tail, and thought him to be like a rope. In every field of thought and life there are bound to be different approaches by different people, and the result is that widely different philosophies develop. As the human organism is the most complex of all structures, many parts of it not being subject to direct investigation while the mind-body is in a living state, there is likely to be much conflict of opinion. Today there are many competing views of learning, each of which has merit, no one of which is probably the final interpretation.[1] Space will permit of the discussion of only three viewpoints that have had or are having wide influence upon our attitude toward learning in the school.

Traditional View of Learning. Traditional teaching in most of our schools is built upon a psychology that held mind and body to be separate entities of which the mind was much the more important in the educative process. Freshmen in college have in large numbers solemnly answered the writer's question as to the meaning of learning by saying that it is the accumulation of knowledge. They were brought up on the memorizing interpretation of education, whereby it was supposed that through the ingestion of sufficient facts the mind became stuffed or filled and the person was to that extent "learned." Learning involved the acquisition of standardized subject matter in and out of books. It began with sense perception and included the building of images and concepts or ideas. At its worst, in this view, learning was verbal memorization, mind-stuffing; at its best, a rather abstract type of associa-

[1] Boyd H. Bode, *Conflicting Psychologies of Learning* Heath, 1929. John N. Washburne, "Viewpoints in Educational Psychology," in Charles E. Skinner (Ed.), *Educational Psychology*, pp. 705–732. Prentice-Hall, 1936.

tion-forming which prepared for something to follow. One subject was to develop one mental faculty better than another, but the stable time-honored subjects were the most appropriate materials.

Behavioristic View of Learning. Along came behaviorism, a view of psychology not concerned with mental states or "mind," but with behavior or activity. Learning now consisted in building up habits more than ideas — of S → R bonds or conditioned reflexes. This psychology was supposed to be objective rather than subjective and to depend on direct observation. However, learning still remained piecemeal, mechanical, and atomistic. The outstanding by-product of the movement was the development of standardized and teacher-made objective tests, which tended to mechanize instruction still more than formerly. Another trend is seen in such a report as that of the investigator who found over a thousand aims in teaching English composition. Research workers joined hands in locating specific objectives and specific jobs, hoping and believing that when the specific learnings were numerous enough they would somehow associate themselves and a synthesis would result. Naturally, acute thinkers in the profession, such as Dewey, quickly detected the shortcomings of such a plan of education headed largely toward habit-formation. In the meantime, this particular brand of psychology, and its side show, standardized testing of the piecemeal and fragmentary varieties, has gradually grown in disrepute.[1]

Organismic View of Learning. More recently certain new viewpoints known at times as Gestalt psychology or organismic psychology have arisen, which bid fair to throw the emphasis in education in quite a different direction. As pointed out in Chapter X these viewpoints stress the organism as a whole. Not the faculty of perception as in the older psychology of mental states, not the conditioned reflex as in behaviorism, but the whole individual is the unit to consider. Learning is defined "as the organization and reorganization of behavior which arises from the interaction of a

[1] Walter J. Gifford, "Teacher Evaluation: Examinations, Grading, and Reporting," in Skinner, *op cit*, pp. 556–566.

maturing organism and its environment." [1] Learning involves insight rather than memorized facts or conditioned reflexes. Insight, or comprehension, according to the Gestaltist is the term to be used to indicate that responses in action and thought are not piecemeal and fragmentary, but organized into patterns. Insights are often sudden and intuitive, but are not always so. While the times appear not to be ripe to accept as final any one interpretation of learning, there seems to be much to commend the organismic view. Kilpatrick in an unpublished statement notes that the "whole cat catches the mouse." If one observes the child, it seems equally true that the whole child is involved in a given act of learning such as reading. Dewey, at the threshold of the behavioristic movement, noted that the response affects the stimulus even as the stimulus affects the response.[2] The Gestaltist holds that stimulus (situation) and response are an organic whole, or pattern of behavior. He overcomes the criticism of the older structural psychology which ignores body, and of the behavioristic psychology which "casts out mind," and views the mind-body, or organism, as a unit. This view at least fits common experience if one will but check it against his methods of learning to drive a car, to swim, to blow a musical instrument, to play golf, or do any other complex act of learning.[3]

Essential Elements in Learning. Certain conclusions remain important in any view of learning that takes into account child nature. Learning is an active process involving the learner's whole being. In learning, one is acquiring new skills, attitudes, or habits, synthesized into patterns of conduct. Learnings, as Kilpatrick has pointed out, do not take place singly; that is, when the child is learning a drill in arithmetic, he may be learning an improper or proper study habit, as well as certain attitudes toward school, toward teachers, and toward learning. Perhaps

[1] Washburne, *op cit*, p 716.

[2] John Dewey, "The Reflex Arc Concept," *Psychological Review*, Vol. III (July, 1896), p 357.

[3] See analysis of contrasting behavioristic and Gestalt theories of learning by Edward C. Tolman, "Theories of Learning," in Fred A Moss (Ed.), *Comparative Psychology*, pp. 367–408. Prentice-Hall, 1934.

more important than these generalizations is the further one that the best learning takes place in response to needs, purposes, interests, or goals of the learner. To this point we shall now turn.

Goal-Seeking, or Purpose, in Learning

During the last one hundred and fifty years, when science has been making such phenomenal strides in remaking our life and thinking, there have been many educational innovators or progressives who have reshaped our thinking about education and learning — Rousseau, Pestalozzi, Basedow, Herbart, Froebel, Mann, Spencer, Parker, Dewey, and many others. An analysis of their thought shows that each was struggling, as were many of their predecessors, to pave the way for a child-centered school. More specifically, we find their discussions replete with suggestions for the use of interest, motivation, and purposefulness in education, always in sharp contrast to conventional memorizing and verbal practices. As an example, the project method, sponsored by Kilpatrick, emphasized first of all pupil-teacher purposing, and then, in a more or less sequential way, three other steps: planning, executing, and evaluating.

Motive or Goal as a Factor in Learning. Recently psychology has come to break with the more atomistic and mechanistic techniques of the past two decades; it tends, in many quarters, to support the great educators, just as common sense has always given a large place to individual purpose and initiative in life situations. Woodworth early modified the $S \rightarrow R$ formula to indicate the importance of motive, as affecting the way in which a specific stimulus calls out one response in preference to another. For example, food placed before a cat that is afraid may result in flight rather than eating. Recently Woodworth has emphasized motive and purpose in learning, and indicated that motivation is a practically universal phenomenon with human beings. He defines motive as any activity in progress which is not yet finished. He reserves the term "purpose" for such motives as involve some

foresight of the end or goal.[1] Bode writes as follows in describing the simple act of reaching for a knife at the table:

> The situation changes continuously as the hand approaches the object and finally grasps it, and this continuous change is what differentiates the act from a purely reflex response. This peculiar relation of stimulus and response constitutes what we call mind or intelligence. Purposive behavior requires no entity called mind or mental state to explain it. It runs itself.[2]

Types of Purposive Behavior. Lest the "objective" psychologist who insists that the purpose is only another form of mechanistic behavior go unanswered, let us note Taba's threefold analysis of purposive behavior.[3] The most elementary and therefore most mechanistic in character is that activity in which neither the goal nor the means is consciously perceived. Here organic needs, such as hunger, initiate the appropriate activity or activities. Secondly, there is the type where the objects of sense perception in the environment take on fairly definite meaning — for example, in the case of higher animals, where manipulation of the environment is necessary before food can be secured. One of the best illustrations of this type is seen in the now historic experiments of Kohler, who found that apes would fit sticks together, or rearrange boxes for climbing, in order to secure food otherwise out of reach. In the third type, the one which Woodworth stresses, goal or end-in-view is consciously perceived or even definitely projected into the future, as in the case of one preparing for a vocation. Man undoubtedly "purposes" at all three levels, but the last is most important for education.

Changing Viewpoint in Education. The logical conclusion from this concept of goal-seeking is that education in the new sense is neither the process of filling a scrapbook with indiscriminate knowledges, nor of building up chains of reflexes, but is rather the guidance of pupil purposing. Traditional education has tended to ignore this procedure, and "progressive" education has some-

[1] Woodworth, *op. cit*, pp 298–329.
[2] Bode, *op cit*, p. 249.
[3] Hilda Taba, *Dynamics of Education*, pp. 133 ff. Harcourt, Brace, 1932.

times left too much to pupil initiative before the pupil was prepared. Where goal-seeking and purpose on the conscious level take place, the old insistence on practice and drill tends to give way to child creativity — not that the child rediscovers the world of life and invention, but that he continually reconstructs his own experience as he attacks new problems and situations and incorporates his solutions into his learning. These broadened procedures are based on pupil interest, which Dr. Florence Stratemeyer in an unpublished lecture refers to as "what children see some sense in, where they find some connections." To the child, learning in such a view becomes intelligent, and thinking tends to become a major method of instruction.

Thinking and Creativity in Learning

Need for Thinking. Few problems have recently attracted the attention of teachers and educational administrators more than the importance of teaching children to think. The need of recognizing propaganda, of utilizing wisely the newer products of science, such as the movies, the radio, and so forth, the need of interpreting American and foreign experiments in government — these are only samples of the type of thing which the school cannot afford to ignore. In a happy phrase, Bode has said that the ability to think is the "educational kingdom of heaven." He further goes on to say: "Thinking means flexibility of habit; it means a dominating purpose which achieves its realization by a reconstruction or reorganization of previous experience." [1]

Nature of Thinking. Whereas Bode has thus linked thinking with purpose and motivation, other definitions of this trait vary even more than definitions for other human activities. However, it must certainly be clear that thinking occurs when there is a check in normal activity — doubt or perplexity or uncertainty arising in the pursuit of a goal. In such a situation there is a mental interpretation and check-up, and meanings and relationships come to the front, since habit and reflex will not suffice; to quote Follett:

[1] Bode, *op. cit.*, p. 274.

Thinking (willing, purposing) is *specific* relating of the interdependent variables, individual and situation, each thereby creating itself anew, relating themselves anew, and thus giving us the evolving situation.[1]

To put the matter in simpler language, in a situation that presents novelty or confusion, where the motive is temporarily thwarted, where the ongoing activity is not fully satisfied — in such a situation, the organism studies its needs and creates a new pattern of behavior. The process of creating this new pattern and of organizing it into the experience of the individual may be called thinking.[2] The process seems to be relatively the same whether one, when hungry, seeks food; whether one feels the need of improving a skill in some game; or whether one is trying to find the solution of an abstract problem in mathematics or economics.

Thinking Related to Other Activities. Such an act the modern psychologist is inclined to call creative, not in the sense that one is making an original contribution to science or art, but in the sense that one thereby remakes his own experience. We find, therefore, that much of the earlier discussion about valid inference, about the nature and plan of inductive and deductive lessons, about the amount of data necessary for generalizing, has now to be reshaped. For thinking in this newer conception is not interpreted as logical analysis, but as an activity that goes hand in hand with perceiving, feeling, imagining, purposing. Through all these activities in integrative relationships come the higher levels of organization and living. Thinking, then, is not to be thought of as sequential to the mastery of logically arranged bodies of facts; it is the means to their organization and their use.

Reflective and Creative Thinking. For two or three decades, American educators have accepted the analysis of reflective or deliberative or purposive thinking proposed by Dewey.[3] Reduced to simplest terms, the steps in this type of thinking resolve them-

[1] Mary P. Follett, *Creative Experience*, p. 89 Longmans, Green, 1930.

[2] William H. Kilpatrick, *Remaking the Curriculum*, pp 25–29, 51–53 Newson and Company, 1936

[3] John Dewey, *How We Think* (Revised), especially pp 106 ff. Heath, 1933. See also Dewey's *Human Nature and Conduct*, pp 181–209. Holt, 1922.

selves into (1) location and acceptance of the problem; (2) weighing the evidence in favor of the hypothesis or hypotheses that arise in the mind; and (3) verifying or proving either mentally or actively the most plausible solution. It is relatively easy to test out this process in such a problem as what school one should attend, what courses or curriculum one should pursue, what hat one should buy, and so forth. But if we have taken stock of the new investigations of the psychology of insight, and if we have noted how often we ourselves solve problems by hunches — though not without the use of former experience, to be sure — there seems to be room for a recent contribution of Fletcher, who sets up a companion type of thinking, the creative type.[1] Taking a cue from Helmholtz and Wallas, he suggests three stages of such thinking: (1) the stage of preparation — that is, of study, absorption, and investigation; (2) the stage of incubation, or assimilation; and (3) the stage of illumination — that is, of insight or creation. Probably the reader will say, and very properly, that the two types, reflective and creative, are only nodes in a series and not two distinctive types. In fact Fletcher inclines to this view. He does, however, set up a number of contrasts between them. He holds that creative thinking is more dependent on moods and attitudes, so that criticism may dwarf and discourage it. Such thinking is more concerned with the process than with the finished product, a principle in common vogue in progressive education. Creative thinking, being less cognitive or intellectual, functions together with the whole personality, feelings and urges as well as intellect. Creative thinking is absorbing, nonconformist, free, and unconventional. If one has followed Fletcher in this argument, he is ready for the conclusion that in so important a realm as that of the place of thinking in learning, there is danger today when we try to pin this process down to any single framework of psychology or educational philosophy.

Traits that Characterize Thinking in the School. It is particularly important, therefore, that we are beginning to have available

[1] John Fletcher, *Psychology in Education*, pp. 321–380 Doubleday, Doran, 1934. Cf. Robert P. Crawford, *Think for Yourself*. McGraw-Hill, 1937.

from the pens of the progressive wing of American educators some materials that give large emphasis to the abilities commonly grouped under thinking. A recently published manual for the study and recording of pupil traits gives a large place to these abilities.[1] Samples of such abilities are as follows: active imagination and originality; the ability to think new things — as, for example, art forms; sensitivity to intellectual stimuli from the environment; openmindedness to new ideas coupled with the ability to suspend judgment; the habit of reaching conclusions based on evidence — that is, of thinking through situations. It clearly appears that the authors of this trait analysis have had in mind, first, the central place of thinking in learning; secondly, the balance between reflective and creative thinking; and thirdly, the close interrelationship of thinking with the whole organismal adjustment. Unwilling as humans often seem to be to engage in thinking, and abstruse as are most discussions of the matter, it begins to appear that practical helps for teachers in dealing with this vital problem may now be expected to become continuously more available.

Transfer in Learning

Any discussion of learning must concern itself with the question whether it is possible that one can learn in such a way that later learning will be facilitated. Is it true, as has so often been stated, that the mind grows with exercise as does a muscle? That some subjects have superior value because they guarantee general training? Or may it be possible, as the writer feels, that the long study and translation of Latin into English is a handicap in English composition? These questions come up for discussion under the concept of formal (or general) discipline, or, as it is more appropriately termed, the transfer of learning.

Traditional View of Transfer. In the traditional and age-old view of education, and with the older view of mind as composed

[1] Progressive Education Association, Reports and Records Committee, *Manual of Directions for Use in Trait Study* Beaver Country Day School, Chestnut Hill, Mass., 1934.

of separate faculties, it became customary to associate certain subjects with the development of certain abilities. Geometry, which in ancient times was a practical subject since it concerned itself with measurement, including surveying, lost its practicality for the general student, but was defended on the ground that it offered training in reasoning. This view of the transfer of learning is sometimes supported in spite of the fact that under typical instruction most students frankly report that for them geometry is an exercise in rote memorizing. Drawing and foreign languages were supposed to develop the powers of observation and sense perception, while history gave large values in memory training. Once the mind was trained in one power by a given subject, this ability was expected to be rather generally usable with other subject matter. New subjects were defended by the same argument; for example, sewing and manual training were claimed to develop eye-hand coördination and habits of accuracy and thoroughness which became available in many other fields.

How Transfer Occurs. At the turn of the twentieth century, a number of investigations threw doubt on such claims. The challenge came at the same time that the faculty psychology or compartmental view of mind was being questioned and discarded. Some studies showed either negative effects or no apparent influence. It became popular with some to deny any general transfer in learning. Others, following Thorndike, held that all learning was specific. In this view the only transfer possibilities lay in some *identical element*, either of content, or of procedure, or of aim and attitude. Briefly illustrated, arithmetic had a possibility of being useful in learning algebra because of similarity of content, but the transfer effect might be increased if the habits of reasoning through and of making practical applications were kept before the learner. Another group, following Judd, held that only as experiences were generalized in the learning act could any transfer be had. The influence of these divergent views has been marked, particularly in the reduction of stress upon the problem. In general, the younger members of the profession have been rather skeptical of transfer in learning in any large amounts, while the

older members, especially those teaching the traditional subjects, have carried on much as before.[1]

Experimental Findings. Recent studies of animal and human learning, and wide experimentation with lesions and injuries in animal brains, have led to a rather different view of transfer in learning. These studies and experiments led in the same direction as other studies toward a more integrative concept of learning. Ewert, for example, had adults learn to do mirror-drawing with the right hand, and found that the left hand without training gave better results than the untrained right before the experiment.[2] Lashley's work with monkeys and rats gave similar results and pointed to a general effect of learning as well as the specific effect which the behaviorists claimed was the total effect. Indeed, Lashley after wide research finds that even where there are serious brain lesions and much loss of sensory and motor capacity in animals and men, both show a distinct tendency to unified rather than piecemeal activity.[3] Of similar import are the numerous cases of rehabilitation of muscular and mental functions of soldiers of the Great War, many of which have come under the general observation of the public.

The Eclectic View. For the present, then, it would seem wise to take the eclectic view and recognize all three points of view in learning: the concept of identical elements, the concept of generalization of experience, and the concept that learning is widespread and affects, if not the organism as a whole, at least broad patterns in functional organization. Common sense as well as experimental evidence suggests the importance of application or use of knowledge in practical situations as a means of strengthening the likelihood of transfer. Thinking is bound to be helpful here. Again the correlation or integration of studies as now being practiced in project and unit teaching should bring significant results, inasmuch as when English composition is taught in relation to the

[1] Walter J. Gifford and Clyde P. Shorts, *Problems in Educational Psychology*, pp. 649–674 Doubleday, Doran, 1931.

[2] Wheeler, *op. cit.*, pp. 302–304.

[3] George W Hartmann, *Gestalt Psychology*, pp. 58–59. The Ronald Press Company, 1935.

pupils' needs in the various school subjects, formal transfer ceases to be a problem. In any situation it will always be true that wise learners and teachers may expect to find transfer in learning whenever they more or less consciously arrange conditions to bring it about.

Acquiring Skills, Knowledges, and Attitudes

General Aims in Education. When the practice among educational theorists was to conceive educational aims in terms of one general ultimate aim, such as character, social efficiency, or culture, little influence was felt upon classroom learning. Content continued to be separated into the tool and content subjects, subject lines were sharply drawn, and factual information remained the major objective of formal recitations. In 1918 a significant step forward was made when seven major educational aims were proposed by the Commission on the Reorganization of Secondary Education: health, worthy home membership, citizenship, ethical character, worthy use of leisure, vocation, and command of fundamental processes. Gradually it was seen that even yet the aims were too broad to enable the teacher to plan her work clearly, and teachers of educational psychology and educational methods began to agree that there were three general types of specific aims: skills, knowledges, and attitudes or general patterns of conduct.[1]

Specific Aims. One such analysis is found in the materials provided in a recent curriculum revision for the Virginia public schools. Over sixty specific aims are suggested with several hundred subdivisions. The aims are grouped into three heads as follows: special abilities — for example, to read, to speak, to consume wisely; generalizations — for example, understanding democracy as a method of living and thinking; emotionalized attitudes, such as the scientific attitude, the attitude of tolerance, appreciation of human nature. Lest teachers think that these separate goals should be set up as separate targets, the state courses of study

[1] Walter S. Monroe, *Directing Learning in the High School*, pp. 174–176. Doubleday, Doran, 1928.

emphasize their interrelationships and point out that neither the memorization of isolated facts nor the establishing of unrelated skills creates desirable types of behavior. It is proposed that the most important of the three types of learning abilities are the emotionalized attitudes and that they represent integrations of skills and knowledges.[1] The whole make-up of the proposed curriculum is in terms of large problems or centers of interest. In developing suitable activities whereby these interests can be realized, the teacher is guided to use appropriate specific aims as goals, but typically the selections for a given activity are from all three rubrics noted above.

In the revised edition of a significant little book on *How We Think*, as well as in the earlier edition of 1909, Dewey held that any skill (and information) mechanically and unintelligently acquired would be relatively useless in a situation requiring intelligent use.[2] He has consistently pointed out the danger that much of our education tended to be little other than mere training, which he believed was a term to be applied only to the learning of the lower animals. It would seem that the editors of the Virginia course of study have wisely chosen to emphasize the attitudes. What Kilpatrick emphasized as "concomitant" learnings, and many teachers thought were incidental to other learnings, now become the central emphasis.

The gist of the matter seems to be that while we need for the sake of clarity of thought and action a rather extensive list of goals — skills, knowledges, and attitudes — we need to develop our teaching in large units or projects so that the skills and knowledges are learned not so much as ends in themselves, but as tools for the mastery of fundamental understandings and appreciation of social life. Such a learning situation recognizes the whole individual, and the resulting learning appears to be much more permanent though less readily measurable by the standard types of testing in vogue today. It encourages the further recognition

[1] State Board of Education, *Tentative Course of Study for Virginia Elementary Schools*, Grades I–VII, pp 1–14. Richmond, Va., 1934.

[2] John Dewey, *How We Think* (Revised), p. 63. Heath, 1933.

of the organismic and integrative view of learning as opposed to the atomistic, piecemeal view.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. Describe some learning in an animal or child and note how closely it corresponds to the discussion in this chapter.
2. Note the use of the words *motive*, *purpose*, and *interest* in your general reading and in conversation. Are these terms used with uniform meanings and with meanings similar to those in the text?
3. Illustrate the place of goal-seeking and purpose in your own experience in college.
4. Summarize the chapter in a half-dozen general statements or principles Then check these against experiences in high school and college which illustrate them
5. Collect samples of the short-answer type of tests and analyze their weaknesses and strengths as means of encouraging the best type of learning activities
6. Interpret Dewey's statement "Learn to act with and for others while you learn to think and judge for yourself "
7. Locate illustrations of learning in school or home which seem to be placed at a pre-maturity level for such learning.
8. Show how an attitude or ideal can be an integration of abilities and knowledge. In so far as the "attitude" aims seem the more significant, how would you change the emphasis in some student experience you have had in a given school subject?
9. Locate the presence of the creative as opposed to the reflective type of thinking in your own daily experience, in historic scientific experiments and discoveries.
10. Interpret Taba's statement that "learning's most precious characteristic is creativity."
11. Write a short paper on learning that will particularly stress the importance of maturation, goals, and insight
12. Plan classroom activities that will (1) utilize the creative urges of children, and (2) develop aesthetic appreciations. What psychological principles were used in each instance?
13. "Freedom must come through growth of the parts in the whole. . . . It must come voluntarily. . . . When the applications become conscious and insightful, we become free." Just what is meant here?

SELECTED REFERENCES FOR FURTHER READING

Boyd H. Bode, *Conflicting Psychologies of Learning.* Heath, 1929.

Henry E. Garrett, *Great Experiments in Educational Psychology*, pp. 102–126, 248–265. Appleton-Century, 1930.

Walter J. Gifford and Clyde P. Shorts, *Problems in Educational Psychology*, pp. 259–462. Doubleday, Doran, 1931.

J. Stanley Gray, *Psychological Foundations of Behavior*, pp. 135–165, 373–414. American Book Company, 1935.

George W. Hartmann, *Gestalt Psychology*, pp. 159–186, 269–271. The Ronald Press Company, 1935.

Harry L. Hollingworth, *Educational Psychology*, pp. 9–34, 59–80. Appleton-Century, 1933.

Walter S. Monroe and others, *Educational Psychology*, pp. 147–250. Doubleday, Doran, 1930.

Charles E. Skinner (Ed.), *Educational Psychology*, pp. 27–166, 297–353. Prentice-Hall, 1936.

Hilda Taba, *Dynamics of Education*, pp. 146–189. Harcourt, Brace, 1932.

Raymond H. Wheeler and Francis T. Perkins, *Principles of Mental Development*, pp. 239–328. Crowell, 1932

Robert S. Woodworth, *Psychology*, pp. 158–179, 223–260, 299–333. Holt, 1934.

CHAPTER XII

THE TEACHER AND THE TEACHING PROFESSION

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The Teacher as an Agent of Society

The social order does not and cannot stand still; for better or worse, its destinies are shaped by various factors. Some of these are outside the control of society; others are subject to its jurisdiction and will. Materials, customs, and mores are brought to bear upon the members of society through the instrumentality of other members. To teachers the charge is given to educate the youth of the land, that our civilization may be not only perpetuated but continually reconstructed for the better. The teacher is the agent of society for performing this important work. To her falls a task second in importance only to that performed by the parents of the child. She is the most important agent of society for serving its ever present needs through organized educational efforts. How well the task is performed depends upon many factors. Some of these are inherent in the nature of the social order; some in the nature of the child; others in the means, materials, and methods available at the time; and still others in the insights, resourcefulness, character, health, and training of the teacher herself.

The Teacher and the Community

The teacher serves society by administering to the needs of a local community. She is a part of the community she influences, and she is moulded, in turn, by it. This community em-

ploys her and, if need be, discharges her. From the people she derives her authority, and to them she is responsible. The local community in which the school is situated and in which the teacher lives is the functional unit of the society she serves. The community is a social, economic, political, and educational unit. In her capacity as a citizen, each teacher has social and community obligations which require her attention. She participates in public deliberations, votes, and otherwise helps to promote the general welfare.

Each community influences the kind of education that is provided for its children. The better the community, the better the educational opportunities. It is at this point that the teacher's social and community functions become paramount. As citizen, friend of humanity, and guide to children, she labors not only within the four walls of a school building but in the larger environment outside of school. Whether her work be striving to secure playgrounds, provide summer camps, improve the library, build a club house, develop a parent-teacher association, or participate as a member of a better film bureau, it is ultimately reflected in the lives of boys and girls.

The Teacher's Community Life. The teacher's social and community functions serve several needs. They lead directly, or indirectly, to improved educational service. They furnish normal outlets for the social propensities by providing fun and wholesome enjoyment. They also help the normal teacher to keep a wholesome outlook on life. After a day of hard work in the classroom, the teacher may find a refreshing change in the activities provided by participation in wholesome and worthwhile community affairs. Finally, the teacher impresses the public with the school program when she lives as a citizen rather than as a hermit, provided she conducts herself in such a manner as to hold the respect of her associates. The teacher serves her community primarily through educating its children, and serves its children better through active and intelligent participation in community affairs. The latter type of service enables her, through coöperation with others, to control more effectively the environment in which children play and live.

The Teacher as Agent in Our Educational Organization

From the dawn of history, each social group has passed on its accumulation of beliefs, practices, and institutions to its children, who, in turn, have passed on this heritage to their children. At first the process was simple. Children acquired many knowledges and skills through the process of interlearning or coming directly into contact with other members of the group. As conditions changed, however, life demands became more intricate and complex. Changing social, political, and industrial conditions led to specialized activities and more complicated forms of social cooperation. The result of all the changes, which consumed centuries of time, was that parents came to have little time to devote to their children; furthermore, their lack of adequate training made them unfit to guide their children in a more complex environment. The final outcome was the establishment of schools and the selection of specially trained individuals as teachers.

In certain periods of history, only a chosen few were selected to be educated. In some cases, the child was educated for and by the state; in others, for and by the church. Recently in all countries there has been a rising demand for universal public education.

The state determines the objectives and ends of public education; the schools control the means of education. The school is the recognized agency for educating children; the teacher is the recognized agent. To her falls the responsibility of directing the children's activities so that they can acquire in a few years the necessary tools and knowledges for getting along successfully in life. In a few years children may acquire certain knowledges and skills that the race was centuries in developing. More specifically, the teacher's duties are to stimulate, to inspire, and to direct children in their growth processes.

The teacher, according to one viewpoint, is an agent of the sovereign state. From it she receives her compensation, and to it she is accountable. From another viewpoint, the teacher is a minister to all humanity. Walter Lippmann has well expressed the contrast between these two views in the following words:

The place of the teacher in public life . . . cannot be truly conceived unless we are clear about the relation between the teacher who is a minister of the tradition of higher learning, on the one hand, and governments, parties, and the various contending interests in a society, on the other.

There are two views of this relationship and they are everlastingly in conflict with each other. In the one view, the teacher is a minister of the sovereign. *In the other view, the teacher is the minister of a universal conscience, enlightened by learning, which guides the sovereign and judges him.* In the one view, the teacher takes an oath to follow the king, the dictator, the magnates, the majority, the mob, to follow and serve the purpose of those who exercise supreme power in a society. In the other view, the teacher takes an oath to advance learning and perpetuate it to posterity in order that there may be standards that inform, control, and criticize the actions of the sovereign, of kings, dictators, magnates, majorities, or mobs. In the one view, the teacher is a custodian of a tradition which is higher than any ruler, and learning is not the instrument but the criterion of the ruler's power.[1]

The Teacher Works with the Product of Society. The teacher does not determine the biological heritage of the children or choose their social and economic status. She must work with such children as are provided and do with them the best she can. Bright and dull children, the talented and the deficient, the handicapped and the favored, children from wealthy homes, and others from poverty-stricken homes, are the human materials that the teacher must transform into healthy and efficient citizens.

Experience has shown repeatedly that nearly every one of these children has possibilities. Each one can be improved in his conduct. Each one can be made more serviceable to his fellow men. Each one can be educated to be increasingly competent in self-direction. The directing of the learnings and activities of children in order that they may realize these goals is the function of the teacher. To accomplish her purpose there must be laboratories, classrooms, books, and charts; but these are of limited value unless

[1] From an address on "The Place of the Teacher in Public Life," delivered at Albany, N. Y., on October 15, 1936, before the Seventy-second Convocation of the University of the State of New York

children are guided in their use by an intelligent, sympathetic, and friendly teacher. An efficient teacher can carve out of the environment the materials and means of education and shape them to her needs.

Survey of the Job

Before entering upon an extended preparation for a career, the teacher candidate may profit by giving careful thought to relevant problems. She should study critically the duties and obligations of the teacher and determine what personal qualities are needed for the job, what professional requirements are imposed by the state, what rewards may be obtained, and what opportunities are afforded for personal growth, happiness, and social service.

First of all, what are the responsibilities that must be assumed by the teacher? Duties, functions, and responsibilities may be discovered by observing both elementary and high school teachers at work and at play, by talking with teachers, and by reading professional books and journals. What do teachers do? Are the activities of a routine character or of a creative and artistic nature? Is the experience of teaching enjoyable? Job analyses reveal numerous items which can be grouped into types of activities which vary more or less according to the kind of school. Conventional and modern activity schools, for instance, present wide divergences in procedures. The following activities of teachers may be noted:

(1) The teacher determines the *immediate goals and objectives*, or the abilities, attitudes, standards of value, and ideals that the pupils are expected to acquire as a result of their participation in appropriate learning and life situations. She must always be aware of the fact that her *ultimate goals* are intelligent self-direction and social functioning of her pupils.

(2) Through the proper selection and control of the means, materials, and methods of education, she stimulates and directs pupil activities in ways that are most effective for the realization of her objectives. Her task involves such duties as preparing projects, developing activity units, and selecting library books or miscellaneous materials so that they can be used economically and effectively.

(3) She measures and evaluates the outcomes of instruction.

(4) She promotes and directs extracurricular activities.

(5) She keeps records and makes required reports.

(6) She reads professional magazines and journals, attends and participates in teachers' meetings, and supports local, state, and national educational organizations.

(7) She lives the life of an intelligent and respected citizen and takes part in the life of the community.

(8) She is ever alert for personal and professional improvement through education in service, travel, lecturing, and writing.

These duties constitute important social and professional obligations. The teacher is a guide and friend to the pupils. She is largely responsible for helping each and every pupil in her charge to develop a wholesome personality and to become a useful citizen. Within certain limits she is responsible for their health, social practices, and general development as citizens. With her principal, superintendent, and fellow teachers, she shares certain administrative responsibilities. These include the carrying out of rules and regulations, proceeding according to schedule if required, making necessary reports, conducting conferences, coöperating with superior officers, supervising home-rooms, and assuming other assigned tasks which call for cooperation.

Predicting Teaching Success

Teacher-training institutions are faced with the problem of student selection. In the past, frequently all students who asked for admission were received. The ultimate results were not altogether satisfactory; a relatively large number of the graduates did not succeed at teaching. Whether these teachers would have succeeded in a system where there was adequate and appropriate supervision, we do not know. Another group — one that has been growing in numbers in recent years — was composed of persons so lacking in necessary qualities that they could not secure positions. These procedures proved costly to the taxpayers, disastrous to the pupils, and often heart-breaking to the graduates or young teachers. As a result of these experiences, various efforts have been made

toward a more careful selection of the candidates to be educated for teaching.

In some states a variety of tests are administered to all high school seniors or graduates who aspire to become teachers. In one state, student candidates are selected by the school administrators on the basis of willingness to employ the candidates when they have been graduated from the teacher-training institution. In still other states, either the requirements for admission are nothing more than graduation from an accredited high school, or such tests and measurements as are made are superficial and of little consequence.

Criteria for Selection. What criteria should be employed in the selection of students for teacher education? The answers will be found to vary. A number of investigators have attacked the problem in scientific fashion. In the past, the most intelligent individuals were supposed to be the best teachers. Native capacity and academic success were thought to be the primary qualifications. That qualities other than intelligence determine the success of a teacher has been reported in a number of the researches. The typical conclusion of all these studies is that the teaching efficiency measures do not discriminate among the teachers with respect to their intelligence. Such factors as leadership, social imagination, social adjustment, assurance, earnestness, and breadth of culture must be reckoned with. Although we are still groping for more light on the subject, we do know a great deal about some of the characteristics and qualities of teachers who succeed and of those who fail, and what qualities in teachers are emphasized by their pupils and supervisors.[1]

From these researches the following list of conditions which are more or less predictive and characteristic of success has been compiled:

(1) Good physique, excellent health, power of endurance and sustained effort, resistance to fatigue, and stamina. If the candi-

[1] In the judging of teaching ability, it has been found that pupils emphasize personal and social qualities of teachers, whereas teachers and supervisors tend to emphasize instruction, management, discipline, and professional attitude.

date is frail, easily fatigued, atypical in physical appearance, or colorless in personality, she should not prepare for teaching. The person who is exhausted becomes grouchy, unhappy, and unsatisfactory as a teacher. Children prefer strong, healthy, radiant, and attractive teachers.

(2) The fact that the candidate has long entertained the notion that she would like to teach. This is more significant than a recently acquired interest in teaching. Does the candidate like to work and play with children? Does she like to plan with them and for them? Does she get satisfaction out of seeing them grow and develop? Does her interest seem to be growing rather than fading? If the candidate can answer these questions in the affirmative, the probabilities are that she will succeed at teaching if other qualifications are met.

(3) Wholehearted participation in one or more extracurricular activities. Such participation brings the teacher into closer touch and coöperation with others; it affords an avenue for relaxation or recreation; and it provides a splendid opportunity for learning the likes, interests, and talents of others. Participation of this character tends to prevent one from becoming narrow and provincial.

(4) Ethical character. No community will long tolerate the teacher who is deficient in those qualities that constitute character. The teacher whose conduct is always beyond reproach and whose life and deeds are examples of service is the kind of person that good parents want their children to emulate. No individual should consider teaching as a career unless she possesses real character, which has been defined as the ability to do the best thing in each situation.

(5) Sound preparation. This is fundamental, and second in importance only to good teaching personality. The good teacher knows what her goals are and how children can be changed for the better. With sound judgment, she selects the curricular materials and methods that yield the best results. Training involves much more than a mere knowledge of subject matter; it implies a knowledge of human nature and of the entire educative process. Effec-

tive training requires about four years of study beyond the high school. If the candidate would be a successful teacher, she must willingly submit to the extended rigorous training of which a first course in education can be only a beginning. The endurance, determination, and character that make for success in the course of preparation will likewise prove to be assets to the individual in her capacity as a teacher.

(6) Balanced control of action. This is of tremendous importance. Without a wholesome personality, teaching may become drudgery and the lot of the teacher most unhappy. In no other vocation is a pleasing and dynamic personality of greater importance. Teachers deal with young, growing minds that are susceptible to every influence, *and of all forces that shape children for better or ill, personality is the most potent.* An irritable, fault-finding teacher brings out the worst in children, whereas an even-tempered, kindly, and considerate teacher brings out the best. The extent to which these statements are true is not fully appreciated by our school directors. Physicians and psychiatrists know which teachers are lacking in balanced control of action because they get many of the pupils of unfit teachers as patients. Parents know which teachers have good personalities because their children like their school work when it is directed by good-natured, sympathetic, and understanding teachers. Unless the prospective teacher has the power of self-control, a spirit of willing coöperation, and a wholesome respect for all other personalities, she had better seek other work.

(7) Continued growth. This is a characteristic of the master teacher. The student who has personality, health, interest, preparation, control, and a drive for personal and professional growth is likely to be successful in teaching. Does the student or beginning teacher earnestly seek to learn better procedures and methods of teaching, by observing good teaching, talking with master teachers, and reading current literature on modern education? Does she always seek the truth through reflective thinking? Does she discuss problems with others for the purpose of learning better how teaching is done? Does she attempt to relate what she is studying to

the task of teaching? If the student does these things, she has the foundation for continued growth.

Briefly, a successful teacher is energetic, enthusiastic, industrious, and resourceful. She has excellent health, a good personality, and the ability to speak and write well. She knows children, keeps well prepared, and is guided by a working philosophy of education. The master teacher never "stands still" in her profession. She is ever seeking better ways of promoting and directing growth. She is experimentally-minded in the sense that she wants to secure better results and is willing to try out new procedures. Only the child's growth, personality, and character and their relation to society matter to her. Procedures and curricular materials to be used in helping promote and control child growth are but means to an end.[1]

Professional Requirements

A student may possess good character and personality, health and ability, culture and all the social graces; she may enjoy the fellowship of others, purpose to do good, have a keen sense of humor, and be resourceful and tactful; yet she cannot teach unless she meets certain minimum standards set up by the city, county,

[1] Numerous terms descriptive of the *successful teacher* are used, among these are the following.

- mastery of subject matter, or scholarship
- personality
- appearance
- fairness
- kindness
- sympathy
- ability to help pupils understand their work, or teaching technique
- good discipline
- impartiality
- sense of humor
- ability to make work interesting
- interest in one's work
- interest in extracurricular activities
- coöperation
- sincerity
- enthusiasm
- cheerfulness
- dignity
- health
- initiative
- tact
- leadership
- good judgment
- justice
- consideration
- good voice
- interest in individual students
- culture and refinement
- clear assignments
- work well organized
- character

or state. It is well to inquire why society has imposed these standards. In earlier periods of our history, only a few children attended schools, and these were taught by inadequately prepared teachers. As time passed, schooling became more and more a universal requirement. Our industrial and social life became more intricate and involved, and the problems of education likewise multiplied and increased in complexity. Standards for teachers were raised so that children would be better educated to take their place in life. At the time that many of our older teachers entered the service it was possible to qualify on the basis of presenting evidence of good moral character and demonstrated ability to pass a written examination. Graduation from high school and normal school, while desirable, was not required.

Minimum requirements are now prescribed by statute or rulings of the state department of education. As a general rule, eighteen is the minimum age requirement. Citizenship and evidence of good health and moral character are likewise generally demanded.

Certification.

Some form of teacher certification is almost as old as public education in the United States. In the beginning certificates were issued by local school districts and were limited in validity to the district by which they were issued. Many states still have local certificating bodies, such as district or county boards of examiners. The tendency, however, is toward placing with state boards of education the responsibility for determining the standards for teachers' certificates, and for issuing such certificates. Local communities may set requirements which are in excess of those fixed by the state. A certificate is . . merely legal evidence that the holder has satisfied certain minimum requirements, most of which relate to number of courses taken in college, and to the fact that certain specified courses, such as practice in teaching, have been completed. Certification, then, protects public interest to a limited degree, not so much against inefficient or otherwise unsatisfactory teachers, as against unprepared teachers. The customary requirement of two or three years of successful teaching before the permanent certificate is granted provides some protection against the continuance in service of those who are unsatisfactory. . . .

It should be clear that certification of teachers exists primarily in the public interest. It has a certain subsidiary value to teachers in that it serves, more or less effectively, to restrict entrance to the profession, and therefore to protect those holding teaching positions from the competition of persons whose qualifications are below those set as the minimum for certification. Unfortunately, there has been little interest in the matter of teacher certification, by either the public or members of the teaching profession. Actually, its importance can scarcely be overestimated. In some states, because of low certification requirements, persons are still being certificated for teaching in the elementary school with no preparation beyond that secured in the secondary school. In other states one year of post-secondary education is all that is demanded. At the other end of the scale there are states which demand three years of post-secondary professional preparation for certification for elementary school teaching, and a few, such as Rhode Island, California, and Connecticut, which now require four years. The tendency in the states which are most advanced educationally, and in many cities, is to require a minimum of four years of collegiate preparation, with specific professional requirements, for admission to the teaching service.

Sentiment against the practice of conferring life certificates has developed rapidly during the past few years. The following are among the most important arguments against permanent certification:

(1) Life certificates in many of the states are issued to teachers with little academic and professional preparation, in some cases with two years or less of preparation beyond the secondary school.

(2) The holder of a life certificate may leave the teaching service for a number of years and then resume teaching, although he may have failed to keep informed relative to new developments in education during his period of absence. . . .

(3) Many teachers holding life certificates are not interested in continuing their professional growth and development. Such persons, especially if protected by tenure, retard educational progress.

(4) Many teachers during their teaching service develop physical or mental infirmities which interfere with their efficiency as teachers.[1]

[1] Alonzo F. Myers, "Teacher Certification and Its Relation to Tenure," *Rho News* (Phi Delta Kappa), Vol. V (April, 1935), pp 2–3

Some states have a department of education which, directly or indirectly, controls the administration of certification of teachers for public school service. In certain states, graduates of recognized teacher-training institutions are granted temporary certificates after they have completed the prescribed professional requirements and courses. Upon the completion of three or five years of satisfactory teaching, a permanent certificate is granted. There is a growing feeling that this plan is lacking in merit. Not infrequently, teachers cease to grow after a few years of service. Why, then, should they be licensed for life? Perhaps a more equitable plan is that of extending the "life" of the certificate at any time — upon due proof of professional growth and evidence of mental alertness.

In the case of state certification of the candidate, usually no qualifying examination is administered. In many counties and cities, the local authorities may require not only one but several examinations, the assumption being that the candidate doing the best work on such examinations should get preferential standing leading to appointment or promotion.[1]

Although standards and certification are in a state of flux, the attempts at some degree of uniformity represent the democratic method of building up lists of qualified men and women from which school officials can choose their teachers. Contemporary procedures may not be the best way. In the course of time, new and better procedures will be developed, and undoubtedly their administration will be still more intelligent. The road to the ideal is always difficult, and mankind will forever be in the process of emerging, yet never quite attaining its ideal.

Survey of Teacher Education. A comprehensive survey of teacher education in this country was completed in 1935. This is the *National Survey of the Education of Teachers*,[2] prepared by the United

[1] The student of education should consult a copy of the school law for her state if she would learn the minimum requirements imposed by it. It should be kept in mind, moreover, that these are ***minimum requirements***. Many of the better school systems require a much more adequate preparation, greater maturity, and not infrequently previous teaching experience.

[2] William J. Cooper and others. Washington D.C : Superintendent of Public Documents, 1933.

States Office of Education and published in six volumes. One of these volumes is devoted to the curricula of institutions which prepare teachers. Without doubt, this survey will mark the beginning of a movement which has for its objective more adequately prepared teachers for the public schools.[1]

The data presented in these volumes pertain to the entire country. There are in the United States at the present time approximately 1,500 institutions preparing teachers for the public schools. "A total of 598 universities, colleges, and junior colleges, and 184 teachers colleges, normal schools, city training schools, and special teacher-preparatory agencies" coöperated in the investigation.[2]

The survey supplies facts which show that "in 1930-31, 23 per cent of the elementary teachers had had less than two years of college work; 49 per cent had had exactly two years; and 28 per cent more than two years. Thus 72 per cent or nearly three-fourths of them had had only two years or less of college work."[3]

Rewards of the Teacher

Thousands of young men and women are considering teaching as a career. What are the allurements and rewards? What can the student of education expect from it?

The teacher who finds happiness in her work is fortunate. Serving others and participating with others in promoting and directing the growth of children bring with them satisfactions and joy. The first reward of the teacher is that of happiness and service. Here, as elsewhere, "He (or she) most lives who serves best." In later years, the teacher can recall with much satisfaction the success of men and women whose character, personality, and usefulness to society she helped to influence. It is the knowledge that one's good works live and influence succeeding generations, that adds to the joy of serving children year after year. The teacher thereby achieves social immortality.

[1] Cf. Lorin E. Bixler, "The Implications for Muskingum of the Changes in Ohio Teacher Certification Laws with Respect to Elementary Teachers," *Faculty News Bulletin*, Muskingum College, April 1, 1936, p 7

[2] *National Survey of the Education of Teachers*, Vol. III, p. 3

[3] *Ibid.*, p. 13.

The social prestige enjoyed by teachers is a reward of no mean consequence. Usually, teachers are regarded with deference and respect. Their opinions are often sought, and they are looked up to as models for the young in unselfish service, social conduct, and erudition. They often enjoy the companionship of the most successful members of society. It is a custom of long standing in some parts of the country for parents to invite the teacher to the home. The social position of dignity and respect is generally proportionate to the service rendered.

There is an economic reward that is of vital importance, although it should not of itself determine that anyone should teach. In a measure, society pays a salary commensurate with the type and quality of service rendered. As most teachers come from families having but limited means, they could not teach in our existing social order unless a living salary was paid for the services rendered. It is necessary, therefore, that teachers receive an adequate compensation.

The amount paid teachers varies greatly from place to place, from decade to decade, and with the kind or type of teaching. High school teachers generally receive more salary than elementary teachers, city teachers more than rural teachers, experienced teachers more than beginners, and supervisors and administrators more than classroom teachers.

Salaries for elementary teachers in 1935 ranged from $300 to $3,000 a year. The salaries of high school teachers were somewhat higher. The average annual salary in our country for all teachers, principals, and supervisors, for the decade ending with 1935 ranged from $1,222 to $1,440.[1] In 1936, when salaries were at about the same level as in 1935, less than one per cent of all teachers and executives received more than $4,000, and less than two per cent received over $3,000. At the lower end of the scale, more than 15 per cent received less than $700 annually, and nearly 40 per cent received less than $1,000. Salaries are relatively small.

[1] Willard E Givens, *Teachers and Economic Security*, a statement submitted to President Roosevelt's Committee on Economic Security, Feb. 16, 1935. Reprinted by the National Education Association, Washington, D.C.

In many cities and counties, teachers receive much less per day than the workers who erected the school building. Many rural teachers of today receive $40 a month, while elevator operators in many cities receive more than twice this amount. However, barring depressions and "hard times," the teacher's salary is sure. She gets her pay every month from a government unit of assured credit standing.

Salaries are usually graduated so that increases follow successful experience and better preparation. The resourceful and adequately prepared teacher has, in addition, opportunities to earn further compensations by writing and lecturing. Each teacher, like any other worker, is always glad to receive a good salary; yet the master teacher is not money-minded. She is totally absorbed in her work, but she does better work when her salary is sufficiently high to take care of her personal and professional needs.

The Retirement Annuity. As part of her compensation for years of service, the teacher in many school systems and states enjoys upon retirement a pension to which she has made substantial contributions. This pension or retirement fund enables her to enjoy her declining years with a considerable measure of economic security and peace of mind.

On this question, Givens writes:

> After a half century of effort, only about 60 per cent of the nation's teachers are working under any form of retirement provision. Statewide teacher retirement systems exist in less than half of the states in the Union. Although a number of independent local retirement systems exist, there yet remain nine states where no protection under either local or state retirement systems is available to any teacher.
>
> Furthermore, many existing systems leave much to be desired as far as soundness and adequacy are concerned. Competent investigating committees have urged early revision and strengthening of the teacher retirement law in at least seven of the twenty-two states where such laws are operative.
>
> The existing systems rarely include the non-certificated school employees or the professional staffs of the state universities and teachers colleges. In only one of the twenty-two state retirement systems were all teachers already in service required to join the retirement system at

its inauguration. Several of the retirement systems operate, partly or entirely, on a voluntary basis. Many teachers of advanced age have been quite unable to accumulate any appreciable reserve or to take advantage of the opportunities offered by existing retirement systems. The retirement allowances granted in these teacher retirement systems average not more than $600 per year. This amount is below the average yearly retirement allowances available to industrial employees, municipal employees, and Federal employees under the retirement systems which now protect these groups. In several states the average allowance paid is entirely inadequate. One state system, for instance, paid an average allowance of $125 per year. A special study of teachers who retired in 1930 reveals that in only one state retirement system did annuitants receive as much as half salary; teachers in three systems received less than one-fifth of their final salary.[1]

Tenure — A Questionable Reward

Tenure affirms the right of the teacher to continue in employment, following the completion of a stated period of satisfactory probationary service. When a teacher has tenure he may be dismissed only for reasons stated in the tenure act or regulation, such as immorality, gross inefficiency, or physical or mental incapacity. It should be stated that permanent or life certificates usually may be revoked for immorality, conviction of a felony, and in some states for other reasons. Usually only an overt act on the part of the teacher can result in loss of tenure or of a permanent certificate. Obviously, if a teacher loses his certificate he loses his tenure, since he cannot be employed if he does not have a certificate.

For several years the National Education Association has been active in the sponsorship of tenure legislation for teachers. This campaign has met with indifferent success in most sections of the country. To date only five states have state-wide tenure laws. These are California, Indiana, Maryland, Montana, and New Jersey. Eight others have state tenure laws, usually applying only to cities. New Jersey, the first state to adopt such legislation, has had a tenure law for teachers since 1909. Many cities have local tenure regulations. There is lack of agreement within the teaching profession relative to the desirability of grant-

[1] Statement submitted by Willard E. Givens, Secretary, National Education Association, to President Roosevelt's Committee on Economic Security, Feb. 16, 1935.

ing permanent tenure to teachers, although classroom teachers generally favor it. Those who object to it claim that the capable, efficient teacher does not need such protection, while the inefficient teacher, to whom such protection is valuable, ought not to be retained in the teaching service. Those who favor tenure point to its protection of all teachers against dismissal for political reasons or personal animosity. There is some merit to both points of view. . . . The following is recommended as providing adequate protection of the satisfactory teacher against an unjust verdict from a prejudiced or politically influenced administrative

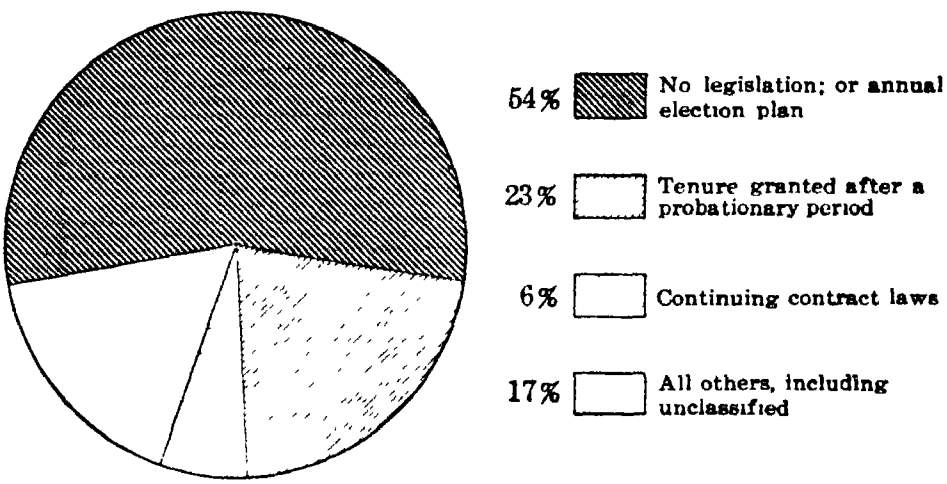


FIG. 9. PROPORTION OF TEACHERS UNDER VARIOUS TYPES OF STATE TENURE LAWS [1]

superior. It is proposed that the teachers' organizations appoint a committee of review whose function it will be to conduct an investigation upon the request of the teacher whose service has been declared by his administrative superior to be unsatisfactory and as a result has been denied renewal of his certificate. A disinterested committee of educators should be appointed by the state commissioner of education to render an advisory verdict in cases of disagreement between the local school administrator and the committee of the teachers' organization. This committee of educational experts should be paid by the state for services actually rendered. The cost to the state should be insignificant as compared with the importance and value of the services rendered.

[1] From *Journal of the National Education Association*, Vol. XXV (October, 1936), p. 203.

It is the opinion of the writer that the best interests of public education and of teachers will be served by the enactment of such tenure legislation in all of the states as will protect the teacher from dismissal for reasons other than inefficiency or immoral conduct. The same safeguards as were suggested above relative to renewal of certificates should be provided in cases of attempted dismissal. Professionally-minded teachers do not wish to protect inefficiency in the public schools. An informed public opinion will not wish to continue conditions which at present prevail in most communities by which teachers may be discharged for reasons wholly unrelated to efficiency or morality.[1]

Who Should Not Teach

The discussion thus far has been focused on the student who should teach, with implications only here and there regarding those who should not teach. None should enter any calling unless it offers the kind of work she enjoys. Frequently other factors intrude. Some may be obliged to enter teaching on account of economic necessity. If these individuals adjust themselves properly, they may make excellent teachers. Furthermore, a teacher who fails in one position, or under a given supervisor, may give excellent account of herself under other conditions or in another position.

Society must guard against the possibility that the profession will be filled by malcontents. The student who is not strong, healthy, vigorous, and free from all peculiarities or deformities should not attempt to prepare for teaching. Most school officials wish to appoint as teachers men and women who have rugged health and who present a good appearance. The student who is negative, cantankerous, or lacking in emotional balance and the ability to work agreeably with others, should not think of teaching — at least, not until such undesirable characteristics have been changed. The student who is lazy or diffident should not enter teaching, for success in this profession implies industry, resourcefulness, planning, and insight. The student who is unwilling to go out of his way to help another, or who sees in teaching merely the monthly pay check, should seek another occupation.

[1] Myers, *op. cit.*, pp. 2–3.

The factors which prevent teachers from securing positions were listed by Clement in the order here named: surplus, choice of location, marriage (women), limited certificate, poor subject combination, age, unsatisfactory personality (unfriendly, immature, unresponsive, uncoöperative, exotic, poor voice, poor English, lack of initiative, unpleasant appearance), poor recommendation, late registration, not available in time, poor health or physical handicap, salary, and continued study.[1] Increased attendance at teachers colleges, increased salaries, the increased number of degree-granting institutions, and decreased opportunities in other occupations are among the causes of the surplus mentioned first in Clement's list.

Teaching Opportunities

Thousands of teachers are being employed every season. Some of them are hired "blind"; that is, they accept whatever position is offered them. Many "make good" and thereby prove that a fine personality with an adequate cultural background and a dominating purpose are effective in numerous situations. In times of economic stress, candidates for teaching positions cannot be too discriminating. They can "make good" in a number of areas if they set themselves to the task of succeeding.

The beginning student of education ponders the opportunities that are ahead. If the problem is carefully thought through, consideration must be given to the number of teachers, the number of vacancies to be filled each year, the nature of the vacancies or kinds of jobs available, the types that most interest the candidate or student, and the variations existing in each particular area of service.

At any given time, some fields or areas are overcrowded, while in other areas vacancies cannot be filled because there are no available candidates. If history is an overcrowded field, retail selling may be a field in which few teachers are available.

In view of the tremendous overlapping of abilities and adaptability of stable and intelligent individuals, it is generally a good

[1] E. Clement, *A Survey of the Oversupply of Teachers as Reflected in the Placement Agencies of the California Teacher-Training Institutions*, Nov. 1, 1930. Sacramento, California, Department of Education, 1930.

investment for the student to prepare to teach in two areas: two elementary grades, or two departmental or subject-matter fields. If vacancies do not occur in one area, they may in the other. In many elementary schools, teachers are obliged to teach more than one grade or subject; and in many high schools, they may teach two, three, or even four different subjects.

Needed — a Proper Orientation. For many years Russell Conwell of Temple University gave his "Acres of Diamonds" lecture. The story revolves around a character who was always looking for power, position, and wealth far from home, but at last he found it in his own back yard. Teachers are much like that character. They often believe that if they had a position in the Lincoln School, the Ethical Culture School, the University of Chicago Elementary School, or in some other widely known institution, they too could succeed Unimaginative teachers are saying repeatedly that they cannot make use of creative urges of children in their system because they have as pupils only children of uneducated parents, perhaps children of parents born in Italy, Poland, or Mexico, or children of parents receiving government relief. Such excuses are but flimsy pretexts. The trouble is with the teacher — not with the school building, pupils, or the social-economic status of the community.

There is an enterprising teacher in one of the poorer counties of southern New Jersey who has in full operation a creative education program that rivals the best efforts of the better known progressive schools in quality if not in quantity of production. Opportunities little dreamed of by unthinking teachers lurk in every rural setting. One has only to read Herbert Quick's *The Brown Mouse* and *Fairview Idea* to be convinced. Since the publication of these books, the developments in radio, airplanes, and in other fields of science have multiplied the opportunities. Each environment has its own peculiar offerings. There is needed everywhere the teacher who will utilize these resources as opportunities for developing boys and girls. Creative teaching develops children for social usefulness. Through it the social life of the community is improved and the physical environment transformed.

Selecting a Teaching Area

While still in teacher-training work, the student will want to give some thought to the field in which she would like to teach. Too early a decision is not desirable. If the teacher wishes to find a position in a given community or to get placed promptly when graduated, she may be obliged to accept whatever position is created or vacant. If she is clever and if her background is sound, she can adapt herself to her task.

Finding the Subject or Level. Consideration of the following facts will help the student of education to find the area that most interests her. The number engaged in teaching may increase in certain areas owing to many factors, one of which is the general increase in population. This factor, however, needs to be carefully weighed. With the shutting off of immigration by the Quota Act of 1924, the emigrants exceeding the number of people coming in, and the birth rate dropping, America faces a slowly increasing, slowly decreasing, or possibly a stationary population by about 1950.[1] Already some states and cities seem to have reached the peak of enrollment in their elementary schools. Population shifts are a common occurrence Some areas have recently lost so many of their people that schools have been closed in one section while expansion goes on in other districts.

This slowing down of the rate of increase in our population is accompanied and followed by many profound social changes. With our school population reaching the peak of total registration, countless adjustments must be made. School boards will need to avoid overexpansion in their building programs. The need for new teachers may be lessened on account of this factor although there will be a persistent and increasing demand for better teachers. There will be more interest in adult education, with the result that

[1] Dr O. E. Baker, economist at the United States Department of Agriculture, Washington, D C., predicted that the population of the United States would begin declining about 1945 or 1950 "unless people started having more babies or immigration increased" The birth rate during the last ten years has declined more than 25 per cent.

normal schools and teachers colleges will need to divert part of their graduates into this area.[1]

As economic conditions improve, the class size should become smaller. If this happens, more teachers will be needed. As our social conscience is quickened, teachers will cease holding two, three, or even more positions simultaneously, and more jobs will then be created. The present tendency is for pupils to stay in school longer and for laws to be enacted that raise the age level for compulsory attendance. The natural result of these tendencies and practices is for a greater demand for trained teachers.

The number of teachers in our public elementary and high schools now approximates 900,000.[2] A small number retire every year, some die, and others resign or sever their connection with the schools; thus, new demands are constantly being made for trained teachers. A study of the situation reveals that those who are best trained usually get the positions.

Just which kind of position the student should prepare for must depend upon the types of jobs that exist, the special interest of the individual in subject field or age of pupils, the particular fitness or competence of the person to do the work, the economic conditions or welfare of the family, and other situations over which the student

[1] Cf Rufus D Smith, "Population and Schools," *Journal of Educational Sociology*, Vol IX (April, 1936), pp 449-468

[2] The United States Office of Education released on March 18, 1936, the following figures on the number of educators in the United States for 1934.

Public elementary and high schools		
Teachers	847,120	
Principals and supervisors	33,106	
Administrative officers and assistants	18,111	
		898,337
Private elementary and secondary schools		72,197
Universities, colleges, and professional schools		99,530*
Commercial and business schools (1930)		3,231
Schools for defectives and delinquents (1932)		5,186
Indian and Alaskan schools		2,000
TOTAL		1,080,481

* This figure is an estimate, but is believed to be close to the actual figure. Data not otherwise marked are for the school year 1933-34

may or may not exercise control. In most situations, no single factor should be sufficient to prompt a decision. As in numerous other situations in life, the student must make as intelligent a decision as possible.

Types of Educational Positions. The kinds of educational jobs are listed in the accompanying analysis. There are others, to be sure, but these are the areas in which greatest demands exist for teachers.

AN ANALYSIS OF TYPES OF POSITIONS IN THE EDUCATIONAL SERVICE[1]

A. In the field of Elementary Education persons specifically trained for the following types of positions are needed:

- a. Classroom Teachers
  - (1) For one-teacher schools
  - (2) For "horizontal" departments
    - (a) Kindergarten
    - (b) Primary (grades 1, 2, and 3)
    - (c) Intermediate (grades 4, 5, and 6)
  - (3) For "vertical" or subject-matter departments
    - (a) Single subjects
    - (b) Combinations of subjects
  - (4) For "special" schools or classes
- b. Supervisors
  - (1) General
    - (a) Of horizontal departments
      - a-1 Kindergarten
      - b-1 Primary (grades 1, 2, and 3)
      - c-1 Intermediate (grades 4, 5, and 6)
    - (b) Of all grades
  - (2) Special
    - (a) Of single subjects
    - (b) Of combinations of subjects
    - (c) Of "special" schools and classes

[1] Prepared by the Faculty Committee on Curricular Adjustment and Revision of the School of Education, New York University, 1928.

c. Administrator-Supervisor
   (1) Research Specialists
   (2) Assistant Principals
   (3) Principals
d. Administrators
   (1) District Superintendents
   (2) Assistant or Associate Superintendents
   (3) Superintendents

B. In the field of Secondary Education persons specifically trained for the following types of positions are needed:

a. Classroom Teachers
   (1) For single subjects
   (2) For combinations of subjects
   (3) For "special" classes
b. Supervisors
   (1) Special
c. Administrator-Supervisor
   (1) Department Heads
   (2) Subject Directors
   (3) Educational and Vocational Counselors
   (4) Assistant Principals
   (5) Principals
d. Administrators
   (1) District Superintendents
   (2) Assistant or Associate Superintendents
   (3) Superintendents

C In the field of Collegiate Education persons specifically trained for the following types of positions are needed.

a. Subject-matter Teachers
b. Supervisor-Administrator
c. Administrators

D. In the field of Teachers College and Normal School Education persons specifically trained for the following types of positions are needed:

a. Instructors
b. Supervisor-Administrators
c. Administrators

After due consideration has been given to the jobs available, to her own abilities and interests, and to the counsel of dependable educators, the student is ready to make a tentative decision regarding the area or subject. Among fields of work are nursery and pre-schools, kindergartens, primary grades, intermediate grades, junior high schools, senior high schools, colleges, professional schools, adult education, librarianship, recreation, educational administration, research, personnel and guidance, school psychologist, and others. On the elementary level, the teacher may handle all subjects in a single grade. She may handle all grades, as in a rural school, or do departmental work in several grades. In high school she may teach one subject or several. At any level, it is highly desirable that the teacher be qualified and willing to handle two or three subjects or grades.

In the elementary field, thousands of kindergarten, primary, and intermediate grade teachers are needed each year in cities, villages, and centralized and consolidated schools in rural areas. There are calls of every description for junior high and senior high school instructors. Teachers are needed for every subject that is taught and for new subjects that are being introduced. There are opportunities in English, the social studies, the sciences, mathematics, languages, practical arts, business subjects, and fine arts. Students of education who are looking forward to teaching might well explore the opportunities in the fields of particular interest.

In many rural regions, the one and two-room schools serve the needs of the people. In districts having the proper facilities for transportation, many of these schools have been consolidated into district or township schools. In other parts, where districts are sparsely populated or the roads are bad, consolidation is not practicable. In still other parts, the people are opposed to consolidation. The net result of these and other factors is that we have thousands of one- and two-teacher schools.

The Challenge of Rural School Teaching. Rural schools offer especially fine opportunities for the beginning teacher to build up a background of successful experience preparatory to securing a city position. It is a fact, however, that some cities will consider

only candidates with experience.[1] This means that one school or district gets the benefit of mature teacher experience at the expense of another district. It is the rural and small village districts that suffer most from this practice of the wealthier city systems. Again, the rural schools — one-teacher and consolidated — offer the finest opportunity for service. Such schools are a challenge. The teacher can know each pupil well; she can visit each home; and she can share with her people all their joys as well as their problems. While most schools are supervised by a county or township superintendent, unlimited opportunities are presented for genuine life projects.

If the beginning teacher possesses originality and industry, and if she is motivated by a spirit of service, let her secure a rural school position. She will find the people of the open country genuine in their affections and respect, and of superior character. They have worked hard and earned what they possess, and are the most independent and self-reliant class of citizens. Teachers who guide the destinies of their children find real pleasure in their work.

The Challenge of the Special Fields. There are many special fields that require the services of hundreds of individuals. Inasmuch as we have many subnormal, blind, deaf, crippled, and otherwise handicapped children who must be provided for in special classes, we need special teachers for the task. Under the proper guidance and treatment, these children often show remarkable progress. To serve the needs of these children, some of whom are temporarily and others permanently handicapped, is a service that appeals greatly to many of our fine young men and women. The student who is interested in this type of position should visit classes for the handicapped and the best types of schools and institutions which are devoting their efforts to educating these children.

Workers in Special Fields. School systems of any size need research workers who investigate cost and pupil accounting problems,

[1] In 1930–31, according to the Biennial Report of the United States Office of Education, 58 5 per cent of the cities and towns with more than 2500 population required no experience; 18 per cent required one year, and 23.5 per cent required two years.

measure the outcomes of instruction, diagnose special problems, and assist in the work of guidance. Research workers should usually be chosen from the ranks of experienced teachers. Other special types of educational workers needed include: school clerks, vocational counselors, deans of boys and girls, librarians, and school psychologists. Here again, it is generally wise to make the appointments from the ranks of teachers. It is assumed, of course, that the individual appointed has prepared herself for this special work, that she is well qualified in all ways for the work, and that she prefers it to teaching. Ability to coöperate with others is one of the most important qualifications of these specialists.

Civil Service Positions and Service Organization Jobs. There are many educational jobs obtainable through civil service examinations. Although patronage raids on the civil service sometimes break the morale of the personnel, it is clearly evident that more civil service jobs in the field of education will develop over the coming years. Needs exist also for trained teachers and directors in Scout work, the Young Men's Christian Association, Young Women's Christian Association, Young Men's Hebrew Association, boys' clubs, and numerous other social agencies.

Positions in Higher Education. Demands always exist for teachers in our teachers colleges, colleges of arts and sciences, professional schools and universities, but in these instances the educational requirements are much higher than for elementary and secondary school positions. At least one year and usually three years of graduate work beyond college are required of candidates. Positions in the faculties of our teachers colleges are usually filled by appointment of candidates who have had successful experience as teachers, in addition to other requirements. In the case of the liberal arts college, assistants are often appointed from the ranks of outstanding seniors or graduate students, and the appointment is held as temporary. Instructors in our junior and senior arts colleges usually possess the Ph.D. degree and show promise in their chosen field. Their contracts, for a period of one year, are renewable as often as the administration desires. From the rank of instructor, the college teacher goes successively to that of assistant professor,

associate professor, and professor as rapidly as the administration sees fit. It is often a long road to the full professorship. The optimum conditions surrounding college teaching and the freedom accorded college teachers are a part of the reward. Genuine scholarship, logical thought, industry, and a spirit of coöperation are indispensable requirements of the college teacher.

A Consideration of Values. It is as honorable to teach first grade as it is to teach senior high school English or college psychology; it is as honorable to teach as to be a school superintendent or college president. It is neither promotion nor demotion when a teacher changes from one subject or grade to another. These are the important questions: Is the teacher working in the field where she can render the most efficient service? Is she in a field that gives her the greatest happiness? Success in teaching depends upon how human conduct is being influenced, not upon such superficialities as the age of pupils or the grade or subject taught. Opportunities abound everywhere for the teacher of vision, resourcefulness, and ideals.

Needed — More Men Teachers. There are increasing demands for men teachers on both elementary and high school levels. It is not beneath man's dignity to teach either in a rural school or in the lower grades, for he has proved his worth in both fields. It is to be deplored that more men are not eager to teach in the grades, especially since boys beyond the age of eight or nine need the influence of men. The facts are that we need more men as teachers, and that more men are coming into the profession.

Questions to Ponder. What are the special opportunities within each of the school subjects or levels? What are the opportunities for service in the so-called progressive or modern schools? Where do opportunities exist? What opportunities exist in rural areas? These and other related questions can be discussed profitably in the class and with educators and citizens who know the facts. However, opportunities are largely of the teacher's own making. No school, for instance, offers any opportunity to the teacher who lacks imagination, industry, and good intent. An efficient principal or supervisor may arouse the lethargic teacher to appro-

priate action, but all teachers should be eager to use the opportunities that abound in every environment.

Observation of Teaching. Most beginning students in our teachers colleges and colleges have been out of the elementary schools for a number of years and out of the secondary schools for a few months. They remember only more or less accurately *how* their teachers taught them. Since the student's attention then was not on educational aims, objectives, procedures, curriculum, and values, these may not have been noted. The events we remember are often distorted by purpose and emotional set. The fidelity of reports on observations deteriorates with time. Finally, new practices develop which were not in vogue when the college student was in the public school. All these factors support the contention that beginning students of education should observe a number of types of teaching at different grade levels, in several subjects, and in special fields. Moreover, there should be observations of what the teacher does both in the conventional schools and in progressive or activity schools.

The purposes served by demonstration teaching are many:

(1) Observations illuminate the mind so that the student can better understand aims, practices, and values that are being studied in the orientation course.

(2) Observations furnish the beginner with appropriate illustrations for the facts and principles being studied in theory and background courses.

(3) Observations aid her in making a decision as to the type and level of educational work that she should engage in.

At this time, the primary purpose of observing superior teaching is to help the student become better oriented with reference to education and teaching. This being the case, the student should attempt to determine from the teacher and pupil activities observed: (1) what major aims were served by the activity (for example, intelligent self-direction, social functioning, good citizenship, ethical character, harmless use of leisure, aesthetic enjoyment, health, ability to think reflectively, creative expression); (2) what

the purposes and goals of the pupils were and how they attained them; (3) what curricular and extracurricular materials were employed, how they were organized, and what procedures were used for realizing the objectives and goals set up — that is, how pupil activities were stimulated and guided; (4) how appraisal was made of the products of the learning; (5) whether the pupils gained in power of self-direction and social functioning; (6) whether they met with success in their efforts to reach the goal and were happy in their work; (7) whether the procedures were socialized and also adapted to the individual needs and requirements of all pupils; (8) whether the school made any effort to effect intelligent cooperation with parents in the community; (9) whether the teacher's personality was such as to inspire pupils to industry, cooperation, and happiness; (10) whether the activities engaged in by the pupils actually helped them to live more effectively and provided a suitable basis for growth.

Teacher Supply and Demand — Summary of Factors.

I Factors influencing teacher supply·

A. Factors which cause an oversupply —

1. The tendency for former teachers to return to the teaching profession.
2. Teaching salaries comparatively more attractive than formerly.
3. Reduction in non-teaching opportunities, causing preparation for short-time teaching by many who formerly planned to go into other occupations.
4 Reduction in the number of women leaving teaching to get married.
5. The output of trained teachers.
6. Lack of inter-institutional cooperation.
7. More men in teaching.

B. Factors which reduce an oversupply —

1. More careful selection and guidance of teachers.
2. Higher standards of teacher training.
3. Higher certification standards.
4. Revival of business.

II. Factors influencing teacher demand:

A. Factors which reduce the need for teachers —

1. Decreased birth rate.
2. Increased pupil-teacher ratio.
   (a) Elimination of small classes.
   (b) Increased size of classes.
3. Contraction or elimination of school services; such as kindergartens, pre-schools, special subjects, adult education, night schools, continuation schools, correspondence courses.
4. Longer tenure of teachers
   (a) Fewer women leaving to get married.
   (b) Fewer leaving to enter the other gainful occupations.

B. Factors which increase the need for teachers —

1. Increase in enrollment.
   (a) Higher compulsory attendance ages.
   (b) Stricter enforcement of compulsory attendance laws.
   (c) Increased years of average attendance

C. Factors which may cause changes in demand in the future —

1. Provision for equalizing opportunities in the elementary and secondary fields
2. Expansion of school services, such as kindergarten, special subjects, adult education, etc.
3. Improvement in general financial conditions
4. Changes in the number leaving teaching.
5. Changes in qualifications demanded of teachers; such as age, sex, training, experience, marital status.
6. Removal of personal and political prejudices and favoritism.[1]

The Teacher Secures a Position

If the prospective teacher can meet all the requirements imposed by law, and if she wishes to devote her life, or at least a few years of it, to teaching, candidacy for a position is in order. The search usually starts before graduation. The procedure varies according to circumstances. These conditions can never be pre-

[1] R. H. Eliassen and Earl W. Anderson, "Teacher Supply and Demand," *Review of Educational Research*, Vol. IV (June, 1934), pp. 258–260.

dicted with much accuracy in advance, although it is possible to ascertain which school systems have a heavy turnover in personnel, which ones have few vacancies, and the reasons for each of these situations.

Certain general suggestions will be of help to youthful graduates of teacher-training institutions. If the graduate can afford to stay in school for another year, perhaps working for a Master's degree, she can hold out for the kind of position for which she has prepared. If the position is not forthcoming, she may return to college or the university for more work, which will of course place her in a preferential position in the following year. If her financial position is already seriously impaired, she may be obliged to accept almost any kind of position that she can get. If she has the right kind of character, she can make the usual adjustments and succeed in spite of her preferences. New interests can be cultivated, and new abilities developed. A young man who prepared to teach high school English was not able to secure a position in that field. He accepted a grade position in a rural consolidated school. He did a splendid job of teaching and participated in community affairs. Soon he was put in charge of the elementary division of this school, and two years later in charge of the entire school. Seven years after his graduation this young man became county superintendent. Lest the impression be gained that his education stopped with his graduation from the teachers college, it should be stated that he secured a Master's degree by attending four summer sessions at one of our large universities, and found time to write some articles for an educational journal and to participate in numerous community projects. A teacher with courage, leadership, a spirit of coöperation, and industry can succeed almost anywhere.

Learning of Openings. There are several ways of securing knowledge of vacancies. Most teachers colleges, universities, and state departments of education have appointment bureaus. Students generally enroll in such bureaus and depend upon them for getting placed. Sometimes these bureaus succeed in placing all applicants; at other times, many are left at the end of the season with-

out positions. It is often necessary, therefore, for the graduate to use her own initiative and ingenuity in finding a vacancy. She may write or interview her own city or county superintendent. If she made a good record in the system as a grade or high school student, and if she can come back to them with a fine college record, she will probably be offered a position. If the system is small, it might be best for her to work elsewhere if possible. During "hard times," communities become provincial. They tend to employ teachers from among their own people. It is for this reason that each student in a teachers college or college of education should keep her "home town" contacts with the local school officials.

Commercial teachers agencies provide another way of getting in touch with school officials where openings exist. While such agencies usually charge five or six per cent of the salary of the first year, some of them render useful service on a high plane; others are very unethical in their practices. Although the existence of commercial teachers agencies is evidence of an imperfect social order, it is doubtful if they will go out of business in our generation. It is of considerable social importance, however, that unethical practices of certain commercial agencies he stopped. The teacher might well enroll in one or two reputable commercial agencies if agencies are approved by the city, county, or state educational authorities.

Sometimes candidates for positions will make applications for positions in some favored city or county. Occasionally it works out well, but in most instances such letters of application are "filed for future reference." To "file" an application generally means to bury it. Thus, a superintendent of a typical city of 40,000 population reports that he has 1,500 applications on file, but when vacancies occur in his system, he is generally obliged to fill them from among teachers college or college graduates who are from his city.

What to Consider When Accepting a Position. In accepting an appointment the main consideration is not salary, as many surmise. It is rather the opportunity which the position affords for

growth, and the nature of the service that can be rendered to the community. Educators with wide experience are of the opinion that where one teaches and the initial salary received are of little relative consequence in the case of career teachers. These factors are overshadowed by many other considerations, which the candidate should carefully think through.

The Teacher's Growth

Growth, which is so characteristic of the master teacher, is conditioned by an inner desire that springs from work properly conceived and well performed. Growth knows no limits except those imposed by time and circumstances over which the teacher has no control. It implies a personality capable of learning — one that finds interest in the development of children, that manifests intelligent and tempered patience, deep sympathy, and insight into human nature, and which inspires confidence, morale, and good will.

Teacher growth implies a continuous in-service training which finds different expression at different times and in different teachers. This in-service training may mean that the teacher observes demonstration teaching by her fellow teachers and demonstrates to others how she works. Directed discussions following such prepared demonstrations are invaluable for keeping teachers alive to new materials, procedures, goals, and relationships. Teacher training may often come about either as a concomitant or as an end product of cultural courses taken after school hours, on Saturdays, or during summers. Such courses, when wisely chosen and pursued intelligently, have fruitful possibilities. There is little to be gained by outside labor if such work usurps so much of the teacher's time that she is unable to make adequate preparation for her classroom activities. If the attitude is one of seeing relationships between what she is studying and the job of teaching, if she can generalize and apply what she learns in her teaching, the possibilities of improvement become marked. Moreover, if she is determined to master her studies rather than merely earn so many points of

credit, get marks, or meet alertness requirements, the possibilities are doubly promising.

A Balanced Program of Work and Play. Should the extra work result in an added strain, loss of sleep, worry, or should it otherwise overtax the teacher's nervous energy, her efforts may be in vain. The teacher needs always to balance her work program with play, recreation, and occasional vacations. Health is paramount at all times, for good teaching does not exist unless there are health, vitality, and plenty of nervous-energy reserves. Just as the in-service training must be attuned to the individual's health conditions, so it must also be adapted to her time schedule in such manner that it will not interfere with what she is employed to do. Travel, camping, hobbies, lecturing, writing, and community activities provide other avenues for growth.

National, State, and Local Teachers Organizations. With the advent of teaching as a profession, numerous professional societies and organizations have come into existence. These are directed by educators for the promotion of all phases of education and for the improvement of society. Organizations of this kind have been formed for almost every kind of teacher and administrator. They may be local, county, state, or national. The National Education Association is our great national society and its organ is its monthly *Journal*. Each state has its organization and journal or organ. There are also sectional or district organizations and others serving the small units of school control. All these organizations are democratic in character. They serve both their members and society by helping in the great work of keeping individual teachers alive to new and often better things. Lest the teacher become too subject-matter or grade minded, or otherwise provincial and fixed in her attitudes, she should be an active member of national, state, and local organizations, both in and out of her own field. The term *active* should be stressed, for membership that is not of a participating nature is of little worth.

There is another reason why teachers should belong to one or more teachers organizations. In times of stress, it frequently happens that certain well-intentioned but misled groups will at-

tempt to control the activities of educators so that the teachers are either forced to evade the discussion of certain current problems or else to distort truth and violate reason in dealing with them. It is one of the functions of school boards and administrators to safeguard the educational program and to protect the personal and professional liberties of teachers by resisting pressures that are distinctly undemocratic and un-American. Sometimes, as Kefauver [1] points out, school boards and administrators are impotent or helpless in resisting the demands of pressure groups. Only through a strong professional organization of teachers can such insidious attempts to regiment and dictate educational policies and practices be dealt with effectively. Only in this way can the tenure of efficient teachers be protected.

Professional Journals. Professional and other magazines provide an opportunity for growth through reading, and then for further growth through attempting to utilize the procedures they discuss. There are magazines for every group and interest. Some can be secured through personal subscriptions; others are available at the school or town library. Each teacher should be provided with at least three or four professional magazines and two or three general magazines that fit her tastes. Magazines will not promote growth, however, if they are kept on the shelf. They must be used intelligently. Some of the things read and assimilated must be tried out in the teacher's classroom activities.

Teacher growth means change in teacher aims and procedures. Educational courses, magazines, and organizations promote growth to the extent that, through the teacher, they influence the lives and behavior of boys and girls, the community and finally, the social order itself.

Professional Standards and Ethics

Teaching is more than a dignified calling; it is a profession. It has the characteristics of other honored and respected professions, which require preparation to the end that teaching service may be

[1] Grayson N. Kefauver, "An Educational Platform for 1936," *School and Society*, Vol. XLIV (Sept. 5, 1936), pp. 289–295.

more effective; it pays more or less according to merit or quality and type of service rendered, and carries a high degree of permanence of service and position, whether or not tenure laws exist. Those engaged in the work enjoy social position, dignity and respect. Finally, a profession has a code of ethics which is directive of proper practice. The profession of teaching has a code governing the relations of teachers to others and the practices of teaching itself.[1]

A code, an accepted system of rules and regulations designed to govern the members of a profession, exists for the public good. It is of especial assistance to teachers in their adjustment of conflicting loyalties since it enables them to meet situations more adequately, just as a law makes it possible for citizens to govern themselves better than they could if laws were lacking.

Should a teacher work against the interests of her profession by offering to pay a member of a school board for electing her to a position? Should she try to convert pupils to her own religious or political or social philosophy? Should she fail to coöperate with the recognized administrative officers in questions pertaining to routine work? Should she become lax in moral character? The profession, through its code, has answers to this series of questions.

It is true that codes may not result in changed conduct. However, they do point out to the uninformed and to new members of the profession examples of ethical and unethical practices. A code serves a warning to all who would use the profession as a cloak or lever for unethical practices that such activities and practices are discouraged by the entire profession.

Codes are slowly evolved. As changes occur, each code is revised. There are codes for local groups and others for state groups. More recently, the different codes have been approaching a "oneness" or "standard" in form and content. The teachers' code as developed by the National Education Association fits about all situations and cases.

[1] Herman H. Horne, "The Ministry of Teaching," *Methodist Review*, (Nov.–Dec., 1927), p. 841.

The Teacher's Creed

Every teacher should give careful thought to the development of a statement of educational philosophy, or creed, which will embody the sentiments and confessions of one who would efficiently serve humanity by giving freely and ungrudgingly of her strength and ability to the development of a better society through the intelligent direction of children entrusted to her care. This creed, growing out of observation, study, and experience, should find ultimate expression in action. It is but a window through which the teacher can see the world, a standard by which her educative activities can be evaluated

A creed in harmony with the spirit of this volume follows:

I believe in the reality of a changing society I believe that education must change in order that the values of society may be transmitted and enriched more effectively I believe that education can be promoted and social progress facilitated when educators have a clear perspective. This perspective must be built out of the experiences of the past, present conditions of the community, nation, and world, and forecasts of the future society in the light of present trends To overemphasize one to the exclusion of the other factors can result only in distorted vision and irrational practices

I believe in the democratic system of American public education and will strive to perpetuate and improve it.

I believe in the organization of our schools into elementary, secondary, and higher divisions, and in the departmentalization of knowledge only to the extent that such organizations and departmentalizations serve to promote more effectively the desirable growth of children.

I believe that an understanding of the pupil and the learning process makes it easier for the teacher to develop personalities and to form characters.

I believe that curricular materials, methods, organization, and the teacher exist in educational situations only as a means to an end. The end is an improved society and individual personalities capable of intelligent self-direction and social functioning.

I believe in the wholehearted support of public education and its intelligent control to the end that growth be promoted.

I believe that the schools should strive to secure educational outcomes

that are in harmony with the best traditions of the past, the best thought of today, and the ideals of tomorrow. I believe that schools and teachers are worth just the differences they make in the lives of boys and girls.

I believe that the teacher is the most potent factor in the promotion of pupil growth in organized public education.

I believe that all attempts to study, measure, and evaluate the fruits of instruction must take cognizance of all worthwhile outcomes and that the emphasis must be on values. creativity, reflective thinking, social functioning, attitudes, idealism.

I believe that acquiring the capacity for growth and mental alertness is the great need of every teacher.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. What is teaching? Why is it advisable to think of teaching as an activity that is related to the promotion and direction of growth of pupils in self-direction and social functioning?
2. Why must society have agents? Why must the work of its agents be somewhat specialized? Make a list of teacher activities that emphasize the fact that she is an agent of society
3. Trace the historical development of the teacher as an agent of society.
4. Taking the local community as a sample, enumerate and briefly describe the teacher's community functions.
5. Investigate your local educational organization and the place of the classroom teacher in that organization. Prepare a brief on this topic: Social coöperation as a factor in the success of educational organizations.
6. Each personality possesses certain attributes and qualities that are assets. On the other hand, every personality, pupil and teacher alike, can be improved. Make a list of personality attributes or traits that are subject to improvement. Suggest a program of improvement and a practical way of putting it into operation.
7. If the student of education finds herself unsuited to teaching, many happy adjustments can be made. Discuss some of the possibilities.
8. Secure a copy of your state school law and a statement of the requirements adopted by the board of education in your city or county. Ascertain what preparation you must make in order to do the work you wish to undertake. Prepare an argument in favor of the thesis

that the student who does much more than simply meeting the minimum requirements is most likely to receive appointment.

9. Observe the work of some master teacher. Consider her rewards — social, intellectual, economic, and others.

10. A class survey of teaching opportunities in some community would be a profitable undertaking. In the preparation of the report, special consideration should be given to such items as:

    (a) Nature of the opportunities.
    (b) Openings resulting from population growth.
    (c) Vacancies resulting from retirements, deaths, and other causes.
    (d) Openings resulting from contraction in size of classes.
    (e) Openings resulting from new developments
    (f) Type of individuals most desired to fill the positions.
    (g) Salaries paid

11. Make a collection of poems that have been written about teacners. How do these expressions of sentiment reflect the evaluation by society of the teacher?

12 Make a study of salary trends, using for your purpose data secured from (1) the United States Office of Education at Washington, D C., (2) the National Education Association, Washington, D.C.; and (3) your own state educational association

13 "A new theory of education is being developed Schooling is no longer the mere acquiring of facts and skills It is education for life through life. It is continually seeking to remake life to ever higher and richer levels. We have a new conception of the curriculum. Traditional learning is giving way to really educative experiences. The new school is expected to build moral character. The enrichment of life and the building of character are the main objectives Through the enrichment of child life, adolescent life is enriched, and through the enrichment of adolescent life, adult life is enriched" William H Kilpatrick, in the *New Republic*, Nov. 12, 1924, p. 3

Is the "new theory" of which Kilpatrick speaks the result of philosophizing or experimentation? Just how may a knowledge of this chapter be of aid to the student of education in deciding if she would like to operate the "new school" that the writer has in mind.

14. Study several of the codes for the teaching profession, and then make comparisons. Of what value to society are such codes?

Of what value to the teacher? How does the development of codes illustrate the democratic tradition?

15. What are some of the things that unemployed teachers can do while they are awaiting appointments?
16. Study the history of education for the purpose of finding out if teaching has always been a profession, and if not, just what the situation was.
17. Account for the fact that there is an apparent oversupply of teachers at the present time. Are too many entering the profession? How does this situation affect you?
18. Make a list of the different groups, institutions, and organizations which the teacher must serve and to which she must be loyal.
19. Make a detailed analysis of your own decision to make teaching your life work.
20. When a teacher signs a contract for service, what are the only professionally ethical reasons she would have for breaking it? What ethical practices must she observe in securing a position? What is a teachers' creed? Prepare one that epitomizes your own tentative and changing philosophy of education.
21. Eleven states had fewer residents in 1935 than in 1930 despite the gain of nearly 5,000,000 for the nation as a whole How do such population shifts affect the supply and demand for teachers, if at all?
22. The state should "so arrange its financial aid for teacher education that selective admission, selective promotion, and selective certification will eliminate candidates for teaching who are unfit in general ability, health, initiative, personality and scholarship." Discuss this statement from the point of view of society.
23. "The importance of education to the welfare of society and to the continued improvement of its institutions demands that the teaching profession attract to its ranks the best of American youth." Assuming the social necessity of having superior persons for our teachers, what obligation rests with society to provide social and economic security for the efficient teacher?
24. It is now generally believed "that among the factors that are alleged to contribute to real teaching success, are the stamina or persistence displayed by the teacher in her own earlier schoolroom attitudes, the early dawn and marked continuation of interest in the teaching profession, the extent to which teachers have engaged in extra-curricular activities during their earlier training and the extent to

which they have definitely committed themselves to the teaching profession" Evaluate yourself in the light of these criteria.

25. "Graduation from a professional school or college is only the beginning of a teacher's preparation. The profession has always endorsed the principle that a teacher's education is never complete." Interpret this pronouncement.

SELECTED REFERENCES FOR FURTHER READING

John C Almack and Albert E. Lang, *Problems of the Teaching Profession*, Ch. IV. Houghton Mifflin, 1925.

Earl W. Anderson and J. L. Morrill, *Do You Want to Teach?* (Revised). Ohio State University, 1931.

William C. Bagley, "Some Master Teachers I Have Known," *Educational Administration and Supervision*, Vol. XXII (September, 1936), pp. 427–437.

—— and John A. H. Keith, *An Introduction to Teaching*. Macmillan, 1924.

O. E. Baker, *The Outlook for Rural Youth*. United States Department of Agriculture, Extension Service Circular No. 223, September, 1935.

Leo M. Chamberlain, *The Teacher and School Organization*, Part III. Prentice-Hall, 1936.

Dennis H. Cooke, "A Proposal for the Selection of Trained Teachers," *Phi Delta Kappan*, Vol. XVIII (October, 1935), pp 48–49.

—— *Problems of the Teaching Personnel*. Longmans, Green, 1933.

R. H. Eliassen and Earl W. Anderson, "Investigations of Teacher Supply and Demand Reported since November, 1930," *Educational Research Bulletin*, Vol. X (December, 1931), pp. 479–484.

William L Ettinger, "The Ethical Standards of the Teacher," *School and Society*, Vol XVII (May 26, 1923), pp. 568–572

Walter J. Gifford, *Introduction to Education* — A Syllabus. Published by the author, Harrisonburg, Va., 1930.

Frank P. Graves, "Teachers' Code Found to Rest on Tribunals," New York *Herald Tribune*, January 26, 1930.

Harlan C. Hines, *Finding the Right Teaching Position*. Scribner, 1926.

Frank B. Knight, *Qualities Related to Success in Teaching*. Contributions to Education, No 120, Teachers College, Columbia University, 1929.

Charles W. Knudsen and Lucius O. McAfee, *An Introduction to Teaching*. Doubleday, Doran, 1936.

Benson Y. Landis, *Professional Codes*, p. 108. Contributions to Education, No. 267, Teachers College, Columbia University, 1927.

Hugh C. Moeller, F. C. Bowersox, and Oliver S. Hamer, *Personal Problems in School Management*, Chs. II, X. Newson, 1936.

Joy E. Morgan, "Education as a Career," *Journal of the National Education Association*, Vol. XV (November, 1926), p. 249

—— "Shall I Become a Teacher?" *Journal of the National Education Association*, Vol. XXV (January, 1936), pp. 5–6.

Sarah T. Muir, "Ethics of Teaching," *Educational Review*, Vol. LXXVI (October, 1928), pp. 179–182.

National Education Association, *Ethics in the Teaching Profession*. Research Bulletin, Vol IX, No. 1, January, 1931, p. 89.

—— Report of the Committee on Ethics of the Profession, *The Ethics of the Teaching Profession*, p. 26. The Association, July, 1929.

National Survey of the Education of Teachers, by William J. Cooper and others. A survey authorized by Congress in 1930 and published in six volumes in 1933. Vol II deals with Teacher Personnel. Superintendent of Documents, Washington, D.C.

Pension Systems for Public School Teachers. United States Office of Education, Bulletin 1927, No. 23.

Recent Social Trends in the United States. Report of the President's Research Committee on Social Trends McGraw-Hill, 1933.

Wilhelm Reitz, *The Intelligence of Teachers, a Study of Scholastic Aptitude in Relation to Teaching Success.* University of Wisconsin, 1930.

George A. Retan, *Management and Teaching Technique in the Elementary School.* Prentice-Hall, 1933.

R. D. Smith, "Population and Schools," *Journal of Educational Sociology*, Vol IX (April, 1936), pp. 449–468.

Florence Teagarden, "Professional Ethics for Educators," *Journal of the National Education Association*, Vol. XIII (February, 1924), pp. 64–67.

Ernest W. Tiegs, *An Evaluation of Some Techniques of Teacher Selection.* Public School Publishing Company, 1928.

Virginia Survey: Teacher Education in Virginia. Proposals and recommendations by Thomas Alexander and others. State Department of Public Instruction, Richmond.

Matthew J. Walsh, *Teaching as a Profession.* Holt, 1926.

CHAPTER XIII

TEACHING PROCEDURES AND PRACTICES

Clyde Hissong

BOWLING GREEN STATE UNIVERSITY

The Process of Adjustment and Maturation

Conformity to Community Standards. Regardless of educational systems, many solutions to the problems of each individual are borrowed from other individuals, oftentimes from the action patterns of an older generation. Any observation, however unscientific, of human activity reveals striking similarities of all individuals within a social group. Society more or less expects that its constituents will behave in like manner. Yet it is usual to acknowledge the similarity without being aware of its inescapable quality.

Illustrations from our complex social life may not be sufficiently startling to be convincing, but the following reference from a new range of experience will present the picture in relief. A writer concerned with problems of child training recorded her observations of various educational procedures as practiced by primitive peoples.[1] Plains Indian children, we are told, are accorded the status of small adults and have a share in community decisions. The opposite is true of children of New Guinea, who are given unlimited freedom from responsibility while adults do servant duty.

These two schemes of education have one startling outcome in common. In both cases the children, as they grow up, carry on in a mode of living almost identical with that of their parents. One group, given responsibility, copies the activity of its parents; the other group, given unlimited freedom, copies the civilization of its

[1] Margaret Mead, "The Meaning of Freedom," *Progressive Education*, Vol. VIII (February, 1931), pp. 107–111.

parents. Two widely divergent methods of child-rearing produce the same result — a new generation following largely the pattern of the old.

Learning by Example as a Factor in Method. This propensity of the young to follow the old has a tremendous significance for education. Youngsters fit into a prescribed pattern, and do so with ease; hence, if the first concern of education is the perpetuation and enhancement of the attitudes, habits, ideals, standards of value, and activity patterns of the present generation, the task is not difficult, and the perfection of techniques by which to achieve the task should be easy. Society is continuously amazed that unruly, scatterbrained children finally become solid members of an adult community. That much of the control which results in individuals who pattern after their elders is the unconscious product of two generations living in proximity is certainly not open to question. Such unconscious and unsystematic control is, however, not enough.

Guidance Essential for Progress. A pattern of guidance is essential if society is to move in more socially adequate directions. Some educators have attempted to solve the problem of more adequate control by providing an abundance of all sorts of tools and materials and freedom for the youngsters to follow their own inclinations. The children of the Manus had freedom, but they seemed bored and listless with nothing to do. Paper and pencils were brought to them. Everything changed. Judged by the immediate creative type of response, it would be quite logical to conclude that the solution to the educator's problem was merely to provide tools and materials. The children learned to write and draw, not only on the paper but on every other flat surface. "They carried their papers about with them and appeared like brown clerking cupids — stark naked, with pencils tucked behind their ears." [1] They had responded enthusiastically to a new element in their environment.

Conformity, an Enslaving Habit. Some phases of this incident point to a moral which should influence decidedly the teaching

[1] *Ibid*, p 110

technique of the educator who takes time to play for a little while in the field of philosophy. In five months of continuous drawing, free from control of the experienced in art activities, the work of the children did not change in character. It was still the work of the naive and inexperienced. Without criticism and aid, the children could not advance. There was no preëxisting art to copy, nor any stimulation to develop something new. Something more than materials seemed to be necessary.

Guidance, suggestion, and criticism — teaching, if you prefer — might have developed in the Manus children a degree of form and style of artistic expression. In the absence of continued stimulation and assistance by individuals or social groups with a vision of desirable avenues for expression and a mastery of the tools essential for artistic expression, the children soon made satisfactory adjustment to the new forces in environment, and growth in the new direction ceased. But children will make new uses of environment and will chart new ways of travel in a complex civilization if a technique of teaching is practiced which continues to disclose means for the development of new elements as they appear. To leave educational results to the process of child observation and imitation leads to a social system which can be little more than a replica of the one in which the children have grown up. To provide unique features that supply potential powers of creation and adjustment makes possible a world with "clerking cupids" driven by interest and supplied with necessary tools. But if new interests and new action patterns are to evolve, if an end-result unattainable through imitation is desired, then technique or the method of procedure becomes at once a primary consideration.

Factors Determining the Nature of Emphasis in Guidance

Any *modus operandi* not imitative in character will quite naturally be influenced by prevalent social forces. People in all quarters of the globe, for example, live differently in many respects. There are differences in government, politics, fashions, food, morals, architecture, occupations, leisure activity. Moreover, if we look

back upon civilization, we discover marked variations in the patterns of the social order from generation to generation, or period to period.

The Middle Ages did not know the meaning of mass production, efficiency experts, and the machine age. Later, Ruskin denounced the coming of the machine and questioned its positive effect upon the happiness of mankind; yet industry has continued with invention after invention since then, and Ruskin would be overwhelmed at the "goblins" which work for modern society. To many persons living today the coming of the automobile was a miraculous event; to many more the automobile has always been a commonly accepted vehicle. Invention rapidly moves man in new directions.

Modifications in social behavior bring with them consequent changes in guidance programs. The educational system adequate for the world which Ruskin thought ideal would be outmoded in an age of specialization and huge factory output. Development of the whole man might in either case be a desired end, but the needs would be so divergent as to demand an entirely different procedure and emphasis.

The Effect of Inevitable Change. It is unnecessary to repeat, except for emphasis, that every institution has evolved through hundreds of years of change — slowly during the early centuries, but rapidly, because of discovery and invention, during the past century. The effect of invention upon society, the contributions of certain thinkers who change established patterns of philosophic and religious thought, the rise and fall of social movements through the influence of a relatively few nonconformists, show definitely that a completely imitative, and consequently static, society never can exist.

The Nature of the Individual. Appreciation of social factors influencing changes does not furnish, however, a sufficient foundation for accepting and practicing specific educational procedures. Another factor contributing to an improved perspective is an appreciation of psychological principles governing human behavior and the learning process.

Every parent feels that his child is different from others, and often that his child is superior to all others. The teacher will recognize these differences as readily as the parent and, in addition, make numerous other common sense observations pertaining to the children consigned to her guidance. Superficial conclusion with reference to causation, however, is not enough to develop a technique for intelligent guidance. The teacher needs to go beneath the surface activity in establishing her interpretation of cause and effect relationship.

Biology confirms the common observation that blood tells; that some individual differences are traceable in some degree to innate qualities of the organism. Each child, with the possible exception of identical twins, is different at birth from every other child in the world. This is true not because each child has been marked and set aside for some special accomplishment, but because the particular combination of genes in the male and female parent cells which initiated his life can never be duplicated.

Supported by biology, it may be accepted without argument that every child is unique. Uniqueness, however, is not necessarily the cornerstone in a method structure. Protoplasm is dynamic, excitable, irritable; it responds to stimulation and is subject to modification in behavior. The composite of a single cell lends its characteristics to a complex aggregate of cells; the individual is, therefore, within himself dynamic. He seeks activity. This, then, constitutes another foundation principle in building a guidance program and in developing a guidance technique. Not only does the individual act when impelled to do so by an external stimulus, but he acts also because of the urge toward activity due to internal tensions and stresses.

Learning as Interaction. The structurally unique, dynamic human organism comes immediately after birth and continuously thereafter in contact with a very disturbing environment. Maladjustments continuously occur; they are inescapable. Through trial and discovery adjustments are made. From the time the infant first learns to manipulate his environment to his own advantage until the end of life, the individual tries, rejects, accepts,

and tries again new ways of meeting situations in a manner satisfactory to himself. Through these repeated attempts to meet existing conditions, individuals learn new ways of behaving. While the individual is developing as he works out solutions to his problems, the environment is also being modified. In an attempt to meet his problems, the individual necessarily alters his environment in some degree.

An appreciation of the ever increasing complex relationship of the individual and his environment gives a basis for the acceptance of a vital principle in developing guidance technique: namely, that the individual emerges and his development continues through the ceaseless interaction of the individual and his environment, which results in a continuously changing individual and a continuously changing environment.

A school program must be built consciously with full regard for these fundamental conditions — a changing society, a unique and dynamic individual, growth and development through interaction. Such awareness gives the clue to the only possible means by which to develop a successful educational program. To understand these conditions is, then, essential, but in themselves they do not furnish the direction of the school program. It is the aim or purpose involved in the educative process which becomes the first criterion in determining the nature of method.

Aims in Education. Statements of desirable directions in which attempts should be made to modify behavior have been phrased in various ways. Practically all these statements — including the seven cardinal objectives [1] of health, worthy use of leisure, worthy home membership, civic education, ethical character, vocational efficiency, and command of the fundamental processes — emphasize worthwhile ideals and attitudes to be developed. They represent, in the last analysis, goals which should insure for the growing child the means of more adequate adjustment in his world.

It has been stated previously that a dynamic, active individual meeting continuously a shifting environment must constantly ad-

[1] *Report of the Commission on the Reorganization of Secondary Education.* United States Office of Education, Bulletin 1918, No. 35, pp 11–15

just to his surroundings. The individual cannot secure adjustment which is enduring, for no sooner has he met one situation than the scene changes and he must meet another. Since living is this process of adjustment, it follows naturally that the purpose of educational guidance is to help the child move toward more complete and adequate adjustment so that he will develop such a mastery over his environment as will make possible *maximum continued self-expression.*

By analyzing this ability to secure adjustment into what seem to be the major contributing factors. a threefold division might be suggested. One of the first essentials for maximum continued expression for the individual in a democratic social group is *vocational facility.* This phrase is open to at least two interpretations: in one sense it means that the school should attempt to provide for the child the way to conclude satisfactorily the task in hand; in the more commonly accepted meaning, it refers to successful participation in a vocational activity. It implies that the student is moving toward skill in a vocation. He is learning to fill a place in the adult world.

Vocational facility goes beyond preparation, however. It is not enough to be able to teach, to sell goods, to attend the sick, to fill any one of a variety of niches in life demanding a multiplicity of skills. It is expected, of course, that young people will be equipped to take some place in the world of working men, but the school needs to take on an additional obligation. It must develop in the child the ability not only to do a chosen or assigned task, but to do it with ease. The primary task is to enable the individual to work without nervous tension. The teacher needs to know enough about the teaching profession to make it possible to meet an endless variety of problems in child guidance and management with comparative ease. The salesman needs most of all an ability to sell with a minimum of effort. The doctor needs ability to diagnose and treat without endless hours of worry over the correctness of his course.

The second phase of our aim is that the school must provide the child with a means for developing and continuing *intellectual in-*

terests. For the school to feel that it has met its obligation when children have passed certain prescribed courses is a fallacy of serious proportions. The larger task is to introduce such stimulating forces in each child's environment as will result not only in the acquisition of sufficient information and skills to meet present problems, but also in the opening up of challenging and exciting avenues to further study.

Such an outcome can be achieved only when the individual is so taught that he may detach principles involved and know the why behind conditions and events. To know, for example, why iron rusts and why fire burns is to recognize the common principle involved in numerous physical reactions; then, because it is known, the individual should be able to apply it in new situations and understand the why of new conditions also. To know the why behind the operation of a telegraph gives the individual the principle of operation of the electromagnet, which will enable him to understand the operation of the telephone. As the individual's fund of principles enlarges and his application of them increases, avenues for self-expression are materially widened.

Utilization of the principles learned in each subject-matter field in leading one to further learning is more likely to result, of course, when the material is taught with that aim in view. Each course must be so presented that the basic principles involved may be set apart to use in new connections. Intellectual interests are derived from the development of underlying principles and their relation to a developing body of knowledge in a particular field.

There is no divorce here between vocational facility and intellectual interest; the individual's growth in one direction supplements growth in other directions. An intellectual interest implies a growing body of usable knowledge. If this knowledge is in the field of the individual's vocational choice, the interlocking is obvious. If the extended knowledge is in new directions, the application is just as valuable even though not as apparent. Widened horizons increase a man's value in any occupation. Then, too, since vocational facility implies the ability to successfully pursue purposes with a minimum of nervous strain, the individual has

energy and vision to glimpse new horizons in his own work and new connections between his work and the rest of the world.

Important as vocational facility and intellectual interest are in making possible maximum, continued self-expression they are not sufficient. The third essential is the development of *social outlook.* Man grows, adjusts himself with greater ease, when he is acting in harmony with society. Whether the individual wishes it or not, the direction of his living is determined by the people who surround him.

It is social outlook which enables the individual to orient himself in his world. Someone has said that "to be" is "to be in relation." Adjustment is more readily achieved when the individual is aware of this relation and constantly extends and enhances it. Social outlook may be identified with a philosophy of life which includes an interest in the well-being of an individual's associates as well as a developing pattern for his own living. Since this attitude is fundamental for the good life, the fostering of it becomes a primary function of the school.

Traditional Guidance Techniques

To serve as a potent agent in the directing of growth is admittedly the function of the school. The direction this growth should take, however, and the most effective methods to follow in contributing to its acceleration have been starting points for endless discussion and investigation. Assuming, however, that the prospective teacher, through a study of factors determining the nature of guidance, has arrived temporarily at a satisfactory conclusion as to the direction which any planned guidance should take, he is then ready to select those methods of procedure which will contribute most effectively to the attainment of his expressed purpose.

It is merely a platitude to say that the old should not be accepted or discarded because it is old, or the new adopted or rejected because it is new. A review of traditional educational practice will show how points of emphasis have shifted with regard to

technique and conception of goals in education. With this review as a background, the novice will be in better position to evaluate traditional guidance techniques. He may then utilize that which will contribute to more efficient guidance in the achievement of accepted goals, and discard or modify those procedures which are not in harmony with the previously accepted point of view with regard to the individual, society, and the aim of education.

Question Patterns. Since the time of Socrates, at least, the question has been accepted as one of the fundamental tools that should be skillfully used by every teacher. In its traditional form, however, the purpose was not so much to challenge thinking as to direct the child in the reciting of factual material previously learned. Skill was judged largely by the degree to which the teacher succeeded in keeping all the children on edge, never knowing at what moment the blow might strike.

Any form of procedure involving group participation must utilize questioning both as a means to point discussion and as a challenge to thinking. In informal discussion groups the questions often come from members of the group, but the teacher guiding the activity and directing it in channels to stimulate growth will continue to utilize the questioning technique. Greatest emphasis in the criteria which follow is placed upon questioning as an integral part of group activity:[1]

(1) Questions must be addressed to the group. This should be the invariable plan, for questions addressed to individuals do not contribute to group participation in meeting a common difficulty. Group thinking will not take place when responsibility is individualized.

(2) Questions should be asked for the purpose of stimulating thinking. Even in recitations where some purely reproductive questions may defensibly be asked, students should not be interrogated in a definite, obvious order. Loss of interest is encouraged by letting a student feel that after he has been "called upon" he

[1] For an earlier accepted list see Samuel C. Parker, *Methods of Teaching in High Schools*, pp. 468–474. Ginn, 1915. A discussion of the qualities of good questioning.

will not be given a chance to participate until his turn comes again.

(3) Class time should not be wasted in dragging an answer from a student who obviously has not had a background of knowledge or practical experience to make it possible for him to develop a response.

(4) For recitation purposes a wrong answer is, many times, worth more to the group than a right answer. It is the wrong answer that challenges the alertness of the group and forces a rallying of all experience that may run counter to what is judged to be the wrong response. Frequently no more effective challenge to group thinking can be thrown out than a wrong response vociferously defended by a member of the group. The teacher should not arbitrarily judge answers to questions as right or wrong, but should graciously permit members of the class to exercise that privilege.

(5) Questions should grow naturally out of the class discussion. If the class discussion is the genesis of the questions and they are stated in clear and concise manner, thoughtfully propounded, the prevalent habit of repetition of questions need never be formed by the teacher

(6) If the recitation period has resolved itself into a truly stimulating give and take activity, the repetition of pupil answers should be not only unnecessary but to a degree considered discourteous to the contributor. Teachers talk too much under the guise of the need for emphasis, with the result that repeating of answers soon becomes an unconscious verbal response used to fill a gap in the conversation.

(7) In the last analysis questions cannot be judged as to type and value except in the particular situations in which the questions arise. A question which may have all the characteristics of a fact question to one student, and actually be a fact question, may, when skillfully followed up by the teacher, prove to be thought-provoking to another student in the same group. Similarly a question obviously of the thought type, when judged on paper, may prove in a class discussion to be only a stimulus for recall

and reproduction of factual material, without any necessity of reorganization whatsoever.

Each characteristic of a good question points toward an interest in group thinking, which of course implies individual thinking. These characteristics and admonitions have been listed because of an awareness of certain inadequacies in the usually accepted recitation form of procedure. Movements of this restricted type have made all teachers aware that the question patterns open to the most serious criticisms have been those which have stimulated recall and reproduction as an end, rather than the use of knowledge, skill, and vicarious experiences as a means of arriving at new generalizations. Modern education has focused its efforts on developing in the pupils ability to make adjustments; consequently, that method which will increase opportunity for making adjustments should be the standard by which to evaluate questioning as well as all other types of guidance activity.

Recitation Patterns. Questioning has been discussed with the assumption that it should be an integral part of every directed group activity. Within the schoolroom, however, many types of recitation procedure, some of which have no place for direct questioning, have been developed and followed with a degree of success.

(1) The lecture method. In its various phases, for example, the system of the early universities, that of the lecture, has been continuously utilized. There are numerous opportunities to employ a lecture on practically any level of teaching, but a warning signal must be raised against its common use as a substitute for more democratic recitation procedures. In various phases of a complicated teaching procedure the lecture has a valuable and definite place. Thus:

(*a*) As a means of initiating a new interest and introducing a new activity or a new assignment in subject-matter teaching the "telling method" can be used advisedly. The elementary teacher who wishes to begin a study of transportation can very often stimulate the pupils to a genuine interest in the subject by telling about some of her experiences when traveling. Or a teacher

wishing to secure for her pupils a real understanding of the immensity of the problems of reconstruction at the close of the Civil War may pique interest by a well-chosen lecture involving stories of financial readjustment in the South.

(*b*) When the information essential to carrying on the activity under way is not available to students, then the teacher may and should use the lecture procedure. Pupils studying about life in a foreign country, for example, profit very definitely from the teacher's recounting of her experiences in that country, or of the comments of her friends who may have visited there.

(*c*) When the length of the research period demanded is entirely too long, compared with the value of the knowledge to be gained, the value of the lecture as a substitute procedure is obvious.

(*d*) The most frequent and more defensible use — if extensive use on any level can be defended — is in the later years of college instruction. The individual with a definite purpose to be served listens with more discernment and will undoubtedly retain more of the lecture material. It is not unlikely that an individual with some degree of maturity who is in pursuit of a dominating purpose may give first place in evaluation of techniques to the lecture method.

Just as the uses and advantages of the lecture method are apparent, so are its inappropriatenesses and its disadvantages. Lecturing employed repeatedly with immature individuals is the surest way to secure inattention and a lowered learning. Individual research is much more effective as a learning device than is an attempt to recall the predigested material of a lecture. Then too, the lecture method tends to exaggerate the importance of the teacher as a dispenser of knowledge rather than a guide to learning. If it is evaluated as a method in the terms of the principle that learning is active, and the lecturer proceeds on the theory that the material presented meets a definite group need, objection to its use will be reduced to a minimum.

(2) The drill period. Much of the time in the traditional school day is given over to the acquisition of certain essential habits for which the telling or lecture method is not well adapted. There is no

disposition, at this point, to discount the contention that all normal children should know the fundamental processes in arithmetic, how to read, how to write, and how to spell. How best to acquire mastery of the so-called fundamentals in any field of study may be open to debate; but so long as the recitation plan is in operation, the drill lesson will continue to be the procedure advocated by many supervisors in the teaching of core material in each subject-matter field.

Some concepts fundamental to the effective use of the drill technique in traditional school practice may be expressed as follows: [1]

(*a*) The effective drill lesson must be conducted with the pupil cognizant of the purpose. If the drill exercise is to fix the number combination in the "tables of 3's," then the pupils must want to know and thereby strive to remember. The pupils' conscious effort toward the goal is a vital factor. Regardless of repetition, the learner will tend to remember that which fits in with his attitude, his interest, his goal.

(*b*) The learner must be aware of the correct response. The drill exercise is conducted for the purpose of making permanent certain desirable responses; from the outset, therefore, these responses must be practiced correctly. The pupil must be guided into making the initial response of $6 \times 3 = 18$ so that he will not be confronted with the problem of imitating an incorrect response. When this problem of breaking down old habits and skills and substituting new ones is in the same or in a related field, its implications are readily accepted. We are not half so amazed, for example, at the English teacher's child who becomes an author and teacher as we are at the Kentucky mountain boy of equal native ability who becomes a member of a college department of English. Our reaction seems justified in view of the fact that any individual in a restricted environment will probably acquire only a limited vocabulary, with numerous colloquial expressions. If a vocabulary

[1] See George W. Reagan, *Fundamentals of Teaching*. Scott, Foresman, 1932. Chapter XII contains a discussion of the drill lesson as summarized here

suited to an English professor is to be an eventual outcome, considerable modification and enrichment must take place. An immense amount of time can be saved if the environment is such that imitation will result in correct responses.

(*c*) The best memory insurance is an understanding and appreciation of the relationship of facts and skills to an accepted goal. It is of no advantage to learn that a noun is the name of something unless the individual memorizing that statement accepts it as a short way of generalizing a number of experiences in the study of language.

(*d*) To acquire skill after an understanding of the fundamental operation has been achieved, a large amount of practice is required. The class period may then become largely a practice period. Students in typewriting, for instance, after an appreciative understanding of finger movements, are anxious to engage in extended practice to achieve dexterity. Likewise in handwriting, after a satisfactory concept of movement, slant, height, and spacing have been secured, purposeful practice will tend to make more legible writers. In arithmetic and in reading the introduction of the flash card and other mechanical devices have served to increase the opportunity for practice to the point of overlearning. The practice period with the aid of mechanical devices has, of course, the decided advantage of stressing both accuracy and rapidity of response.

(3) Development technique. The problem of how to introduce new materials to students and how to help them secure a body of desirable rules of procedure or generalizations is always of primary importance in any educational program. At the turn of the century there came into prominence a development technique designed to solve this problem. It had wide appeal because of its definiteness of procedure and effectiveness in operation.

Although the plan, based upon a theory of mind discarded by present psychologists, is not consistent with many modern points of view, familiarity with it leads to an appreciation of the attempt to make method conform with the then prevalent theory of the way in which learning takes place. Based upon a carefully worked

out psychology of learning, five formal steps of the method were evolved:

(*a*) Preparation — the initial step, in which the teacher, by suggestion, illustration, or skillful questioning, aids the child in the recall of known material which is necessary background for the new.

(*b*) Presentation — the step in which new material is introduced to the pupils. Here examples may be presented which will later result in the formulation of a general law.

(*c*) Association — the step in which ideas are associated with other ideas so that they may be more easily retained. The task of the teacher, then, becomes one of comparing and contrasting relevant materials.

(*d*) Generalization — the step during which a check is made upon the child's understanding of the material presented and a general law is formulated which includes a statement of the common principle involved in a series of incidents.

(*e*) Application — the testing stage. If the child is able to apply his general law in new instances, he has learned the material presented. By this means the pupil's actual knowledge of the lesson is ascertained and the effectiveness of the teacher's presentation is determined.

The following example will illustrate the application of this technique. If a student in a chemistry laboratory thrusts a splint into a bottle of hydrogen, the flame is extinguished. When a splint is placed in a bottle of air, it burns for a brief time. A third splint is placed in a bottle of oxygen; it flares brightly and then goes out. As a series of demonstrations of this type progresses, the student will begin to see a relationship between hydrogen, oxygen, air, and burning. It will be easy for him to draw the conclusion that the oxygen is the essential factor in the burning process. He will then be in position, too, to make application of this principle to numerous phases of his physical environment to test its validity. An exercise developed in this manner, proceeding from specific examples to the similar principle involved in each case, provides the learner with the detailed principle which he may use endlessly in other connections.

At times the more appropriate procedure would seem to be the opposite of the one just suggested. In that case, the teacher would begin with the statement of the principle that objects burn more intensely with the increase of the oxygen content of the atmosphere and not at all in its absence. Verification of the principle would be established by making application to specific cases. This verification again emphasizes the principle to such degree that it may be applied in other experiences apart from the learning situation.

Although too much formality of procedure is usually not advantageous, the development lesson with its formal steps has as desirable qualities the necessity for definite planning and the discouraging of mere memory. To recite a principle or law is not enough; this may be mere verbalism. An understanding of the principle and its applications is the desired end-product of this type of learning activity.

The tendency toward mechanical procedure in following the five steps without modification is, of course, a negative quality. If, however, in the development of new concepts, mechanical method is disregarded and the emphasis is placed upon thinking, the procedure of detaching principles becomes a vital process. Thinking involves the finding and testing of meaning by scrutiny and explanation or by prediction and verification, or by both. The student gathers data, reaches conclusions, tests them, rejects them, and builds toward further conclusions with complete disregard for formal divisions or pattern activities.

(4) Teaching for appreciation. Sometimes classroom activity is directed not so much toward retention or thinking as toward appreciation. Such an aim seems likewise to demand a technique of its own. Appreciation is not secured through mechanical drill procedure. It is possible through inspired teaching, however, to add value for the pupil to any type of experience. Within the limited range of the traditional school curriculum, skillful guidance in the period devoted to geography, mathematics, and other subjects generally accepted as fundamental in character will immeasurably increase the value of daily experience in and out of the schoolroom.

It is the seeing of new relationships in known situations and the developing of new attitudes which accrue that give an appreciation lesson its value. In some instances this calls for little more than the presentation, without comment, of a new idea or favorable reaction toward old things in the environment to secure almost immediate response from the pupils. The immediate environment, in fact, is too frequently ignored by the teacher interested in emphasizing appreciation. A freight yard, for example, near a school or within the range of the experience of the group, may initiate — under the most favorable circumstances — an appreciative study of "The Freight Yards" by Phoebe Hoffman. The uninterrupted reading of the poem will usually be quite sufficient for a vivid impression. The picture is apparent in these lines:

In the long spring evening's twilight, when the sun is setting low,
And the smoke from all the engines flushes up, a rosy glow,
Then I come up to the bridgehead, watch the lights and network rails,
Think of when I rode the freighters — engines spouting steam like whales,
D.L.W., *Jersey Central*, old *Rock Island*, *Pere Marquette*,
Reading coal cars down from Scranton, piled with anthracite like jet,
N. and W., the *Great Northern*, *Lehigh Valley*, *B. and O* —
Like a giant earthworm twisting, slowly round the curve they flow
Caravans of freight move westward, bearing eastern goods away,
To come back with hogs and cattle, bales of sweet Kentucky hay.[1]

A more extensive introduction would probably be necessary for an appreciation of a poem such as "A Man," by Louis Untermeyer. The idea of the poem is simple, yet more abstract than that of "The Freight Yards." Consideration of the poem could very profitably be initiated by a discussion of dinner table conversations, the experiences and impressions which lead an individual out of confusion, the characteristics of noble manhood. These ideas must have transition links which would, of course, depend upon the trend of the group discussion.

Comment after the reading should come spontaneously from the class. If it does not, then in all probability conversation should

[1] Phoebe Hoffman, "The Freight Yards," in Charles W. Stork (Ed.), *Contemporary Verse Anthology*, p 84. Dutton, 1920.

turn to other topics rather than to a forced discussion of the influence of "fresh and generous completeness" of man. A few lines from the poem will show the necessity for greater preparation:

> Hearing the talkers talk, I thought of you . . .
> And it was like a great wind blowing
> Over confused and poisonous places
> It was like sterile spaces
> Crowded with birds and grasses, soaked clear through
> With sunlight, quiet and vast and clean
> And it was forest growing,
> And it was black things turning green.
> And it was laughter on a thousand faces —
> It was, like victory rising from defeat,
> The world made well again, and strong — and sweet [1]

Adding value to experience must be the result, to some degree, of thoughtful guidance in any school subject or in any field of activity. Appreciation, however, has always an emotional quality and too often that quality is forced out, or never initiated, because of an immediate appeal to the intellectual. Then, too, analysis of form, of diction — all elements of style — and critical reaction toward the central idea of the producer are considered more fundamental than the emotional attitude involved. For effective appreciation, group guidance must not move in the direction of making the new element in the environment a stimulus for intellectual gymnastics, but in the direction of making the contact with the new an invaluable and delightful experience.

Unifying Traditional Procedures. This brief discussion of questioning, lecturing, drill, development technique, and appreciation lessons has shown these procedures as ways of utilizing the traditional recitation period. It is assumed from the recitation point of view that certain subject matter is valuable for the child to know; the purpose of the recitation is to see that he does know. This purpose may be accomplished by: (1) giving him the material

[1] From *Selected Poems and Parodies of Louis Untermeyer*, copyright 1935, by Harcourt, Brace and Company, Inc

(lecture) during the recitation period; (2) leading him to discover and prove (development) the fundamental principle involved; (3) continuing presentation (drill) for complete habituation; (4) securing emotional response (appreciation) through understanding the beauty and worth of an idea or principle.

New Movements to Facilitate Mastery

Traditional plans for guidance in education have emphasized the importance of certain subject matter. Some new movements designed to build a more effective method in education are still premised upon this idea central to traditional systems. If the child is to secure adequate adjustment, a certain core of necessary and usable subject matter must be learned. When certain fundamentals in arithmetic, language, and geography are deemed a necessary part of a child's equipment, then it would seem only obvious that each child should be familiar with this core material. The recitation system does not make this necessary familiarity an absolute accomplishment. The goal of the movement for more effective method, predicated on the idea of the basic value of core subject matter, is complete mastery for every child.

Partial learning, so common under the recitation plan, must be eliminated and every child must master the subject matter presented during each term. In addition, a system must be evolved in which no child has the misfortune of failure. The child who cannot learn a given body of subject matter in a certain number of recitations will be given, under the new systems, as much time as he needs. These two essentials lead directly into a third. Children cannot be expected to learn at the same rate; provision must be made for individual differences. To incorporate these essentials in a new plan necessitates the development of a more individualized pattern of teaching, rather than an altering and improving of recitation patterns.

Individual Instruction. Proposals for procedures to teach children individually grew out of a recognition of need for a plan to care adequately for individual differences. The teacher under



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VISUAL EDUCATION



A Laboratory Study

From *All the Children*, 37th Annual Report of the Superintendent of Schools, City of New York

the recitation system was aware of individual differences. He knew that each child had a certain potential accomplishment, and he met variations in accomplishment by a variety of school marks. The advocates of individual instruction worked to meet these differences through a degree of variable instruction.

The purpose behind the increased emphasis upon the individual in the group is to present subject matter in such a way that differences in rate of learning are met. Piecemeal learning is reduced to a minimum through organization of materials of instruction. Mastery — that is, complete understanding of subject matter and ability to solve problems involving the use of specific subject matter — is assured before the child progresses to new work, and thus failure is eliminated.

One answer to this problem of individual instruction has been suggested by Carleton W. Washburne and subjected to critical evaluation in the Winnetka school system. The principle of mastery with all its implications has been taken seriously at Winnetka. Selection of subject matter, its organization for presentation, and workable devices for checking the resulting outcome have been perfected to a degree that has caused many school executives and teachers to turn to Winnetka for leadership in the improvement of curriculum and teaching technique.

In the actual operation of the Winnetka plan, first consideration is given to differences in rate of learning, particularly in the skill subjects. Progress is on an individual basis. A sample of the procedure involved may be taken from a statement of Winnetka's first venture in altering the curriculum. Spelling seemed the simplest subject to alter.[1] At the beginning of the year the teachers tested the children to determine how many of the words to be learned in that year the children already knew. The results were widely variable. Some children knew almost all the words; others knew only a few; and there were all stages of achievement between these two extremes. In each child's book the words

[1] Carleton W. Washburne and Myron M. Stearns, *Better Schools*, pp. 270–287. John Day, 1928. A discussion of technique in teaching spelling and other school subjects.

which he must study were checked. "These were the words he knew he must master before the end of the term, but he was turned free to learn them at his own natural speed." [1] Reading ability was checked in the same manner, as were abilities in all other subjects. Children did not meet in groups for recitation; they knew what material they must learn; they worked by themselves and corrected their own work, which the teacher checked at intervals.

Socializing forces in growth, however, have never been neglected. Usually work of a character other than the acquisition of skills developed by drill occupies a very important place in the day's schedule — frequently half the time. It is in this period that group activities — dramatic enterprises, excursions, entertainments, discussions of social problems — take place and opportunity is given for creative work in art and other forms of expression.

In addition to provision for mastery and differences in rate of learning, another obvious advantage of any individual instruction plan, particularly apparent in the Dalton and other contract plans, is that the work to be done has a larger significance than the daily recitation. Children know definitely how much they must accomplish before they are permitted to move on to additional work. They see their tasks in perspective, not in daily chores.

That desired perspective is gained is evidenced in the Dalton and other contract plans in their method of assignment. Each child is given a contract which indicates definitely the material which must be mastered before a new contract will be available. The child has material before him which will employ him for an extended time span; and since he has this larger task presented to him, he may plan his own means of attack.

One check is usually placed upon the child's freedom of choice: he must complete contracts in all branches before he secures a new one in any field. For example, if the child is studying English, history, language, and mathematics, he may secure a new contract

[1] *Ibid.*, p. 270.

in English only after he has completed his contracts in language, mathematics, and history as well. This limitation is placed upon the child's activity for two reasons. In the first place, because of the definite correlations between subjects it is to the child's advantage to broaden his information as much as possible. Early American literature, for example, may be in many instances more readily appreciated against an historical background of early American life. In the second place, the limitation is a device to keep the child "up to grade" in all subjects. From the administrative point of view this is an advantage, if the child must transfer to a traditionally operated school, he will not be handicapped. From the point of view of the child, this limitation serves to keep his information more nearly balanced.

In order to secure the stimulation derived from contact with others working in a like field, the Dalton plan provides for the coming together of groups for discussion of common problems. In the contract assignments, there is an opportunity, also, for group work in suggested divisions of research problems and the delegating of various phases to committees for study. The child has social contact as well as individual work. Under the contract plan the pupil is provided with a definite guide for a period of time. In envisioning a larger whole through the stimulus of integrated contracts and group conferences, the pupil will find his material more meaningful and his work, therefore, more challenging.

Unit Organization as a Teaching Device. Techniques designed to provide more adequate guidance than that provided by the various traditional recitation patterns could be classed as unit-organization devices. The emphasis is largely on the organization of subject matter rather than on a particular method of procedure in teaching. Aimed at a more effective mastery of approved subject matter, unit plans — and particularly the plan advocated by Morrison — use various devices of the recitation era to make the unit plan particularly well adapted to fit into the traditionally organized school system and yet bring about certain desirable changes.

Directed guidance under the Morrison plan, for example, has five clearly defined steps. The purpose of the first, the *pre-test*

stage, is to determine the background with which the child approaches a new unit (division) of work. If the pre-test reveals hopeless confusion and lack of knowledge, the teacher must apply another pre-test in earlier background materials. In a unit in world history covering the formation of the League of Nations, for instance, if the pre-test reveals that the pupils are ignorant of the terms of the Treaty of Versailles and the attitude of certain leaders at that time to conclude a peace without conquest, then the teacher must spend additional time on the peace negotiations in order that the pupils may see the beginning of the League idea.

After a survey of the results of the pre-test has indicated the common ground upon which the teacher can build, the next step is that of *presentation.* The purpose of this period is to present the highlights of the unit to be studied, and to present them so effectively that the student will feel that he must proceed with the study of them. The presentation period may be brief, but it is always of key importance. To carry out the mastery idea, another test is usually given at the conclusion of this step, so that the teacher may know the degree to which the pupils have understood the presentation.

In the *assimilation* period the primary emphasis is on study to master the assignments growing out of the presentation. For a period determined by the nature of the presentation and the material of the unit, pupils work singly in order to become familiar with the subject matter involved in a mastery of the unit. This period is not the same for all members of the group. The rapid learners are at liberty, when they have assimilated the new material in the unit, to proceed with work in some other field or in additional projects related to the unit.

When all members of the group have completed the third step, the class assembles again for a period of *organization.* This organization period is also individual in nature, in that each pupil presents his own outline of the material learned.

The *recitation* is the final step. In the most rigid observance of the original Morrison outline of procedure, the recitation period is devoted to an oral presentation of the assimilated material by

each pupil. Such presentation is of necessity centered around the unit outline of major points to be developed and may become quite formal. Variation in the recitation phase to provide for free discussion of newly initiated problems and unsolved problems encountered during the assimilation period would tend to prevent degeneration of the recitation step into a period deadened by formal reports.

One important feature of the Morrison plan and all modifications of the unit plan idea, as well as individual instruction techniques such as developed under the influence of the Dalton and Winnetka plans, is the emphasis upon carefully directed learning. The emphasis is not upon the recitation and improvement of recitation patterns, but upon the learning process itself and outcomes in terms of changes in individual learners.

Influence on Traditional Procedure. Divergent points of view are prevalent in the educational world with reference to the most fundamental contribution of such plans as Morrison, Dalton, and Winnetka in modifying traditional recitation procedures. One significant contribution is that the introduction of these procedures has led new teachers and old to examine educational techniques critically in order to determine whether or not methods in most common use provide for fullest child growth in subject-matter knowledge. These plans, based upon individual needs and organized to provide for mastery and difference in rate of learning, may not be accepted; but the teacher, after becoming familiar with them, will be forced to evaluate his own technique and make some modifications in it. New teachers, in their discussion of various techniques, old and new, may be expected to arrive at workable plans which incorporate features of several types of procedures.

Methods for improving the recitation and for finding more adequate ways by which pupils could learn selected subject matter have been steps forward in educational procedure. Advocacy of techniques which in practice have caused teachers to become more conscious of each pupil's difficulties, and to work with the pupil in overcoming them, has yielded valuable returns in learning outcomes. Then too, emphasis of this type has been a major factor

in shifting attention to the guiding of pupils in the formation of usable habits of study and research, with the result that they have discovered how to analyze their own deficiencies.

Problem-Solving

Improvement upon the old is never restricted to one channel, however. Other plans developing over a long-time span have been based on a different fundamental hypothesis than that of individual instruction. Some advocates of a problem-solving procedure, for example, began to go further than to question whether or not prescribed subject matter was essential; they felt that the emphasis on the individual and subject matter to be learned was loaded too heavily on the subject-matter end of the balance.

There has been for more than a quarter of a century a movement to center the curriculum around problem-solving. The central idea has been that subject matter is not the significant thing, but that it is a means through which thinking may be developed. The first progress in this direction utilized the materials of the traditional curriculum and has since widened to include material within and without subject-matter lines. This practice finds its defense in the point of view which gives priority to the thinking process and the development of the habit of careful or scientific thinking.

At any point in experience when adjustment must be made, when a conflict arises, thinking begins. Problematic situations from the trivial to the tremendously serious are frequent in all living. From the teaching standpoint, the task is to evolve a method by which pupils may come to find the most effective solutions to their problems. It is impossible to present answers to the problems which pupils will face; those problems are unpredictable. The teacher can, however, provide her pupils with a method of attack. Such is the belief of the exponents of the problem-solving procedure.

To solve any problem successfully, that problem must be clearly defined and kept clearly in mind. Then suggestions as to possible solutions must be weighed in terms of their relevancy. The trained thinker utilizes many suggestions and carefully tests their value.

A correct solution cannot be secured when only one biased suggestion is offered. For a student to settle the problem of college selection by saying, "I'm going to Newburgh because my father went to Newburgh," is to leave no opportunity for intelligent weighing of factors entering into the situation. Perhaps the student wishes to be an engineer, and Newburgh has no college of engineering; perhaps another school is much cheaper; perhaps Newburgh is too far away. Immediate solution of the problem leaves no avenue for critical evaluation.

Problem-Solving within Subject-Matter Fields. To illustrate the application of the problem-solving procedure within a subject-matter field, an assignment in geography may be employed. A class in fifth grade geography was working on the problem: "What special kinds of work are carried on in the cities in the section between the Rocky Mountains and the Mississippi River? Why?" The group had carried on their learning activity in three areas: the grazing and forage crop regions, the northern region, and the central region. Their problem was solved so far as that portion of the map was concerned; the next step took them to the South. The teacher's opening question was: "Can you read from the map any reason why New Orleans grew to be a large city?" Various pupil deductions followed, and finally the pupils were sent away to find proof for their conclusions.

Problem-Solving Not Restricted to Subject-Matter Fields. Miller presents an interesting discussion of a problem on prohibition [1] that demands a larger field of study than that involved in close subject-matter divisions. Such a study cuts across various subject-matter fields and many family prejudices. Only two guide lines are set up in the initiating lesson: (1) individual liberty versus social constraint; (2) national control versus state rights. These two guide lines emphasize the historical material involved and the implications of the question from a sociological standpoint.

On another occasion pupils started a period of work in answer to the question; "What kind of world would we have today if the

[1] Harry L. Miller, *Creative Learning and Teaching*, pp. 34–50. Scribner, 1927.

marvelous Faraday had not made his contribution (referring to electromagnetism)?" [1] The avenues into which this problem leads seem endless. Suggestions here lead into the whole sphere of modern civilization. In this type of presentation, with a problem of such wide ramifications, the emphasis cannot be upon mastery of specific subject matter, but upon widening of perceptions.

To answer the question of those interested in definite subject-matter residue in the mind of the child, Miller writes: "The boy makes a drawing. What is to be the criterion by which to judge it? Does not the difficulty lie in this confusion over process and product? Would it simplify the problem to assert that the *drawing is making the boy?*" [2]

The Activity Movement

This interest in what is "making the boy" marks the beginning point of one school of educational thought. The child is the center of the educative process. Emphasis is placed not upon the subject matter which every child must learn, but upon the needs of the child. It is not essential that children learn any definite body of factual material, but that they develop in response to their own needs. Curricula built from such a center are called *activity programs*. The keynote of the educational procedure is glimpsed in such book titles as: *The Child-Centered School*, *Education for Creative Living*, *Adventuring with Twelve-Year-Olds*, and *Creative Youth*.

The free activity curriculum is predicated on the theory that interests are inherent. Each child knows what he wishes to do and must be permitted to follow his inclinations. With such an uncertain basis for curriculum construction, the results of the educative process are wide and varied. A group of thirty children may, quite conceivably, be engaged in thirty types of activity leading in thirty directions. It is apparent, however, that even the most ardent advocates of free activity do not permit children to spend school days without guidance.

[1] *Ibid.*, p. 36. [2] *Ibid.*, p. 28.

The Teacher as a Group Leader. In such a program the guidance is more subtle than under the old recitation scheme. The problem here is for the teacher to set the stage so skillfully, in preparing for work in certain directions, that the children accept the task and follow it through with as much vigor and interest as if it were their own. For example, by the use of a newspaper story, a primary teacher led her pupils into learning their own names, addresses, and telephone numbers, their parents' names, and helpful activity in case of accident. The newspaper recorded that a serious accident had occurred to a father and mother while they were driving between towns. Their six-year-old son, who was also in the car, was relatively uninjured. It was the well-trained six-year-old who told the highway police his name and that of his parents, their destination, and the town from which they had come. Without the boy's information the process of identification would have been much longer. The story immediately appealed to the youngsters; they began to collect all the information they should know which would be valuable to a policeman attending an accident.

Naturally, and with enthusiasm, the children moved from this very practical bit of information to a study of policemen and what they do to help people. The children learned through an excursion to the jail, a talk to the chief of police, and some stories about the work of police, the service of the policeman to the child and the rest of the community. From this point, study moved on to that of other community helpers.

By skillful use of the bulletin board, of questioning to recall familiar experiences, of interest-initiating stories, and of happenings which have leading-on possibilities, the teacher may guide interests into almost any channel. One teacher may initiate group endeavor in communication and provide material with innumerable leading-on possibilities, while a second teacher may participate in undertaking an entirely different type of activity with just as many and just as valuable leading-on qualities.

There is nothing inherently better, in many instances, in one unit than in another. Whether second grade pupils work with the problem of community helpers, or with child life in other lands, or

with primitive peoples is probably inconsequential. The important feature from this point of view is that certain fundamental needs and interests of the child be met. In a curriculum built upon this philosophy no effort need be made to keep children "up to standard" in drill subjects. The only use of the tool subjects is to supply opportunity for the study of such material as will be necessary for the completion of the larger activity under way.

Emphasis upon Group Living. It is impossible to get away from the basic idea that all directed educative effort must be social-centered. From the activity point of view, maximum preparation for group living cannot be achieved unless artificial boundaries and administrative devices of the old school are thrown into the discard.

To put socialization first means a correspondingly decreased emphasis upon immediate child needs, drives, and purposes. Each activity or each unit of work must be judged in terms of the degree to which it will contribute through individual achievement to increased group coöperation. Since good health is an essential element for group living at its best, physical education, for example, becomes increasingly important. Emphasis upon competitive sports is minimized in favor of the study and pursuit of those activities which will make for the building of more healthful bodies for all pupils. In all activities, of which the health program represents a type, subject matter is subordinated to the aim of the socialization of the child.

Purpose-Centered Activity. To build on the needs of the child or to build on the theory of socializing the child results, of course, in interesting curricular developments. Unfortunately, the first program may be built too much upon whim, and the second may be too external. A major problem in curriculum development of the activity type is to cultivate worthwhile purposes to help keep the child's activity moving in challenging directions. The purpose-centered activity carries the individual on to its completion without extraneous urging and prompting, and provides the individual with usable background for further activity. A dominating purpose insures for the individual maximum learning.

Children's purposes, needs, and impulses are transitory and shifting. The school desirous of providing activity, social development, and a purpose-centered program faces the necessity of providing intelligent guidance, so that the child may adopt worthwhile purposes which lead to the carrying out of educative activities. Of first importance is the problem of so guiding the child's purposing and his carrying-out activity that he may develop desirable social habits.

Contribution to Educational Practice. The point of view of those who stress the significance of the child and his desires more than predetermined subject matter has made several important contributions to educational endeavor. The first contribution is the unquestioned value of the emphasis on the individual as the central object in the educational picture. Second is the recognition that learning is active and youngsters retain those ideas about which they have done something. It is purpose that determines the relevance, retention, and degree of enrichment of concepts. Third, the activity program, whether it is child-centered, social-centered, or purpose-centered, provides the child with a maximum of freedom. The fourth contribution is its emphasis upon wide environment — an environment flexible enough to insure that the children may have an abundance of raw materials with which to work, an abundance of tools, an abundance of time, and an abundance of source materials, a variety of books, magazines, and child-compiled information.

An Integrated Program

Another plan of procedure is termed integrated education. The most prevalent idea of the meaning of this term seems to link it with correlation. Integration, thus defined, refers to some sort of joining or interlacing of various fields of subject matter; it is an external device for aiding children in moving from one field of discussion to another. To make easier transitions from reading to arithmetic, for example, pupils reading about pioneer life will solve arithmetic problems about Indians and frontiersmen. Such external regulation is, however, far removed from the use of

"integration" in progressive schools. Miss Sweeney defines the process thus: "It has been recognized that integration is what takes place in the mind of the learner; that it is a personal reaction dependent upon the mind's ability to grasp and make use of relationships; and that any arrangement of subject matter content is merely a means of facilitating this understanding of relationships." [1]

A Unitary Point of View. The basic philosophy behind an integration program recognizes the rapidity of change of society and the social order, as well as the essential and unavoidable interdependence of mankind. In this world of flux and interdependence, children need to be provided with a means of coping with diversified experiences. The primary need is that the school program enable individuals to live successfully. The need may be fulfilled through the larger, wider lines of problems to be solved and activities to be carried out. In such a program subject matter, formal time units, and administrative devices become the means to the achievement of the larger end.

There is no opposition here to the activity curriculum. The idea of the integration program is that the child may study home life, local community life, Indian life, races of man, betterment of man's life, just as he might study them in the activity school. The difference apparently so slight is fundamental, however. In the activity curriculum the emphasis is upon the child's needs; it is essentially an individualistic program, and if social responsibility and consciousness accrue, they often come without direct striving. The integration program aims directly at securing a socially adequate and responsive individual. Much stress is laid upon material in the field of the social studies because of the obvious application of the material to the problems of society.

In the field of secondary education the exponents of integration [2]

[1] Frances G. Sweeney, "Integration in the Junior High School," *Teachers College Record*, Vol. XXXVII (February, 1936), pp. 399–405.

[2] See discussion of program in *Teachers College Record*, Vol. XXXVII, No. 5 (February, 1936), and *Educational Research Bulletin*, Vol. XV, No. 2 (February 12, 1936) The entire issue of both publications is devoted to articles relevant to this subject.

would offer a program similar to that of the purpose-centered curriculum. More emphasis, in the maturing years, is placed upon subject-matter fields. English, foreign languages, science, and social studies are taught, oftentimes, as separate subjects. Sometimes work in the fine arts is an outgrowth of work in another field, and then again, in the fine arts class, pupils paint solely in order that they may paint. Small children may enjoy units which overlay all types of subject matter and so may older ones; yet it is but natural, as children move on through the junior high school years, that questions will follow subject-matter divisions more closely.

In the seventh grade the child may still study about the home, furnish and arrange a home within the school building and hold a house warming. He may study the housing, industrial conditions, educational facilities, public welfare provisions, communication and transportation in his local community; yet certain broad subject-matter lines are still intact. There is work in language, social studies, and science Within these three broad fields is encompassed all the material to be discussed.

It is the broad inclusive divisions which open challenging avenues for study. A world literature class, to use a typical example, interpreting writing in terms of large movements is seeing forces that have moved society through the years.[1] Pupils trying to glimpse the beauty of literary masterpieces through a comparison of translations and an evolving of new ones must have a fascinating occupation. It is made possible only because the integrated curriculum looks at the broad sweep of literature as such and not as translation exercises in various languages.

Significant Features of the Integration Concept. The integration concept has two features which seem tremendously significant: the first, that of long periods, is not characteristic of the integration movement alone; the second, that of time for relaxation within the school day, seems, at least in the upper levels, a unique contribution. Short subject-matter periods can never be interrelated and con-

[1] See B. J. R. Stolper, "World Literature," *Teachers College Record*, Vol. XXXVII (February, 1936), pp. 414–421, for discussion of procedure in world literature.

tinuous. The long period, often two hours in length, permits the child to carry out some plans which he may have in mind without unfortunate interruption. The school period was built on the old theory that the child's attention span is short. Probably the truth of the matter is that anyone's attention span is short if the material attended to is uninteresting. A little girl can play with her dolls all morning long while Junior spends the same hours repairing his bicycle. Even the four-year-old will spend his time from supper until bedtime counting crayons into the hands of an interested adult and taking them out, repeating the two processes again and again.

Children are grateful for large slices of time so that they may carry out large purposes. A twelfth-grader doesn't get far in forty minutes with a comparison of two translations of Virgil's *Aeneid* with the meaning of the Latin original. He needs long periods. Members of a committee tracking down transportation facilities in Russia are not satisfied with brief periods.

The second outstanding feature — periods for relaxation — seems of overwhelming importance. Modern civilization moves rapidly, and often for no good reason at all. The American tourist crossing the English Channel is amazed at the English and other Europeans who have brought bicycles. How could they cover enough territory on a bicycle? The question carries a note of astonishment. The American idea seems to be to cover as much ground as possible as rapidly as possible. To give to the American child, then, the privilege of having a two-hour period does not mean that the child must do nothing, but that he has two hours in which he may follow his own inclinations. He may continue with a certain bit of scientific research; he may go into the art room; he may seek recreation; he may do nothing. Perhaps, if he chooses to do nothing, he will spend a valuable period of assimilation.

Appreciation Not Limited to Specific Activities or Subject-Matter Fields. Much time is given to the development of appreciations in all fields. Not all children can become skillful painters, but they can learn, sometimes through trial, an appreciation of beauty of line and color. Creative writers are few, but normal children can be taught to see particular aptness in phrase, clear outlines of char-

acter delineation, sharp distinctions in scene, unique colorful expression. Craftsmen become skilled only after long preparation; yet the child can learn the beauty or the usefulness of the craftsman's job and have an awareness of the fine coördinations necessary for its execution. The child, when he is given a seeing eye, can appreciate the infinite pains of the craftsman who has put two parts of his cabinet together with a perfectly mitered corner. Indeed, the child who sees the value of each community builder can recognize the beauty of a cement walk and the service of the rubbish collector. Appreciation is an all-inclusive term; broad appreciations make living joyous.

Appreciation means awareness of the beauty in an object or condition. It is said that the Japanese often take their children, in the spring when the trees are in full bloom, for a whole day or even several days to view the breathless beauty of the hills. They do not go to study nature, or botany, or geology; they go to see beauty. Is it strange, then, that Japanese art is so exquisite, so delicate? Or that the needlework of the Japanese woman has the quality of fine art? Or that their poetry is so finely traced and fragile? It is as the cherry blossom, beautiful in full bloom — and brief. Heart-felt work in broad appreciations will give society a new generation with understanding eyes.

The Enlarged Concept of Guidance and Counseling

Movements in education which center upon child needs, purposes, and an integration of child experiences do not limit teacher responsibility for child growth to the stimulation of advancement in school subjects. Such movements demand that education concern itself with the physical, intellectual, emotional, and social growth of the child. The aim of education is to enable individuals to adjust themselves in a changing world, and much more than proficiency in academic fields is necessary for adequate adjustment.

Maintaining Emotional Stability. The old Latin proverb, "mens sana in corpore sano," [1] has long been an educational maxim, but has rarely been a guide to practice. The phrasing itself, of course,

[1] A sound mind in a sound body.

implies the need for attention to physical development. There must be developed a recreational health program with an adequate staff of physical education teachers, school doctors and nurses; there must also be a positive program of disease prevention.

An additional implication of the proverb becomes clear when there is realization that a sound mind comes through emotional stability. Such realization has too often been lacking or ignored in the formulation of school programs. Thus insignificant amounts of time have been spent with the shy child, the overbearing child, the child who feels that the world is against him, the child who wishes to do something to spite his neighbors. The school psychologist and psychiatrist and the classroom teacher trained in sound psychology are essential in the modern school.

Children need most of all to know how to work and play and live together. Some people naturally move toward group participation; others hold back. The school program must teach the child the advantages and joys of group enterprise, for it is the means by which the individual grows and the group develops.

Recreational and Social Activities. An extensive guidance program cannot be developed in a short school day. School days must be lengthened, not necessarily in the number of hours demanded, but in the variety of activities. Debates, folk dancing, social dancing (in upper years), athletic meets — in short, all types of activity in which children normally engage outside of school hours — need also to come within the bounds of school surveillance. It is these activities which enhance so much or hinder the development of social attitudes and emotional stability.

Progress in academic and vocational pursuits must never be minimized, but as an accompaniment there must always be social intelligence and emotional stability. When these attitudes are looked upon as essential outcomes, so-called recreational activities are no longer the extras in education. Teachers, particularly beginning teachers, need adequate training in social administration, for it is the one-time extracurricular activities which are becoming of increasing importance in the program for child growth in the modern school.

Academic Progress. New functions of child guidance and counseling also creep into the curriculum. It is not so much the familiar vocational guidance with which the modern school is concerned. Vocational guidance is by no means an exact science, but in dealing with the school child not all guidance, nor even a major part of it, need be in vocational terms. Guidance should first of all "provide the kind of educational environment in which normal growth may take place." [1] The second province of guidance is that of "appraisal and adjustment."

This function of appraisal and adjustment has to do with the smoothing out of the child's difficulties as he confronts them. Here is a significant phase of the guidance program. This is not a plan to help the child to decide specifically upon a future course of action, but a plan to help him meet the difficulties of the present situation.

Significant in the guidance program should be the assistance given to each child in the choice of his fields of study. It is felt, for example, in one school [2] that a child needs three years of study in a foreign language in order that he be able to derive pleasure from reading. A policy is being adopted, therefore, of admitting only those students who intend to study for three years. Yet it is entirely possible that a child intent upon study of a foreign language might discover that he has no particular aptitude for it. In such a case, the adequate guidance program would provide for his shifting into a field which promises more success rather than continuing language study with the chance of only indifferent success. At each step the child's academic progress is watched and guided when counseling is effective.

Adjustment to Major Problems of Individual and Group Life. A list of guidance problems which are undoubtedly fairly typical includes:

[1] Gertrude H. Hildreth, "Guidance in the Lincoln School," *Teachers College Record*, Vol. XXXVII (February, 1936), p 432.

[2] Frederick J. Rex and Jane E. Browne, "Foreign Languages at the Lincoln School," *Teachers College Record*, Vol. XXXVII (February, 1936), pp. 427–431 Contains discussion of foreign language program.

1. School learning problems, such as: failure in school work; reclassification of grading; inadequate learning ability; . . . lack of effort, need of improvement in study habits; choice of reading matter; college selection; homework.

2. Health problems, such as: fatigue, tension, diet, persistent cases of thumb-sucking and other nervous habits.

3. Social problems, such as: unfortunate or immature personality discipline; fears, anxieties, unhappiness; dishonesty; sex adjustment; the lonely child; extra-school social problems; money problems, financial aid; religious conflicts; recreation — movies, the radio, summer programs.

4. Home adjustment problems, such as. marital conflict; poverty; lack of neighborhood companions; parent-child conflict; the broken home; the employed mother; servant-child problems; the overprotected child.[1]

In all these guidance problems the teacher is the first counselor, but because her time is full she cannot always reach a satisfactory conclusion and the child is sent to one or more of the school specialists, such as the school physician, the psychologist, and the vocational counselor. The school emphasis should always be on preventive work first and then, when necessary, remedial work. All preventive endeavor materially lessens the remedial program. Along with the guidance program, as a most important phase of it, should go the carefully administered psychological test. Its results often indicate a clue for the solution to certain problem cases.

Democratic Supervision and Continued Growth

Guidance activity will not reach the highest degree of effectualness in the absence of a supervision program. To guide effectually the activity and growth of children, the teacher must have opportunity for stimulation and constant growth. The teacher who has at her command the resources of a good supervisor has an added impetus to good teaching. Particularly is this true of the beginning teacher who, having completed her methods courses, special education work, and student teaching, must face the routine of the daily

[1] Hildreth, *op. cit.*, pp. 438–439.

classroom. Without careful supervision, the young teacher is likely to fall back into the teaching techniques employed by her own teachers. The intelligent supervisor can, through suggestion and discussion, lead the classroom teacher to a careful consideration of acceptable and desirable procedures. The teacher may then select or modify procedures to meet certain classroom needs.

Supervision Based upon Mutual Respect for Professional Preparation. The school with an adequate supervisory program will give the beginning teacher the finest opportunity for advancement. In such a school the teacher is not circumscribed by her ability to help herself; she may seek aid from those more familiar with educational philosophy and teaching techniques. The beginning teacher needs to look upon the supervisor as her most valuable professional associate.

Inevitably the beginning teacher meets innumerable problems which she cannot solve. It is not, then, her job to cover up those problems and keep them as best she may from the watchful eye of the supervisor, but rather to seek advice from the supervisor. Through suggestion, discussion of course of study and technique, and frank criticism, a procedure may be worked out which will achieve for the pupils the desired learning outcome.

It is not to be assumed that the supervisor is an authority in all fields. She probably knows two or three fields well, but is an authority in techniques, methods of procedure, and the underlying principles of educational philosophy. The teacher cannot, then, hope to learn specifically the content which must be taught. In the conference the teacher and the supervisor each have a definite contribution to make. The teacher contributes her knowledge of subject matter and the supervisor contributes her knowledge of technique in terms of the philosophy guiding the school.

The beginning teacher must recognize at all times that the function of the supervisor is not primarily to criticize the teacher, but to secure the best development of the child through adequate classroom methods. The teacher is not the central figure in a conflict; there *is* no conflict. Teacher and supervisor are pooling their best knowledge for the benefit of the learner.

Democratic Atmosphere Must Pervade Group Activity. The relation between teacher and pupil in the modern school indicates the ideal relation between supervisor and teacher. Contribution in the supervisory program is made by the teacher as well as from the supervisor. The novice teacher not only knows the language of psychology, principles of teaching, philosophy of education, and method but is ready to accept supervision as an aid to professional growth. With this necessary background of philosophy and method the novice teacher also has innumerable ideas to put to work. These already formulated and developing ideas must be adjusted to social needs, child needs, and the school medium for meeting these needs. Such adjustment often demands much from teachers. It is here that a cue may be provided by the teacher-pupil relation.

One report [1] indicated that, in order to provide for the growth of social habits and individual development, subject-matter teachers, for almost a year, had daily conferences to formulate policy. The further statement is that such meetings are still held frequently. This painstaking work over common problems demonstrates the attitude with which the young teacher should approach supervision. In a more formally organized school, teacher conferences are probably not so frequent, but teacher-supervisor conferences of similar character are the stepping-stones to superior teaching.

The Supervisor as a Group Leader. The classroom teacher at times suffers from closeness to her problems; the supervisor views them from a greater distance. It is possible, then, for the supervisor more easily to grasp the whole situation and its significance. It is the supervisor who has clear vision of the basic philosophy upon which the school is built and the broad principles which must form essential patterns of action for the child who has completed the school course. From the supervisor, the classroom teacher may secure aid in the clarification of her educational philosophy.

The progressive school builds on the idea that the teacher is a

[1] See Publications Committee of University School, "Programs of the Upper Six Classes," *Educational Research Bulletin*, Vol. XV (February 12, 1936), p. 38. For a discussion of the kindergarten and elementary grades refer to Vol. XIV (May 15, 1935), pp 118–123.

guide, directing growth. In each class-group, the teacher and the children work together to decide what study is most valuable and most needed. Out of their serious working on the problem comes a choice which is satisfactory to the guide and the guided. The entire class-group has a vision of the aim and goal.

The beginning teacher needs to view her relation to her supervisor as exactly the same process on another level. The teacher plans what she wishes to do and accomplish. Conference with her supervisor clarifies the plans through discussion of the philosophy and larger issues involved. Supervisor and teacher work together to achieve a program which will most ideally provide for the child's physical, emotional, intellectual, and social growth, and thus insure for him self-expression continuously and to the maximum.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. List a number of the relatively more important demands for adjustment with which you have been confronted recently. What initiated each of the problems and what demands, if any, did you make upon your friends for guidance or suggestions?
2. Select a practical problem and show how the suggestions and criticisms of your associates contributed to its solution. How could this guidance activity have been made more effective?
3. Make a summary of the aims discussed in three or four reference books. To what extent do all these aims point in the same direction? By a series of illustrations, show how aims tend to determine content and practice in teaching.
4. After you become familiar with some of the types of teaching from your reading, observation, and discussion with your fellow students, make an attempt to devise ways and means of evaluating each of them. Can any guidance technique or type of teaching be evaluated without reference to the purpose to be served by it? Why or why not?
5. Suggest admonitions which, if observed, will contribute to increased skill in questioning.
6. To what degree should teaching for appreciation be limited to particular school subjects or fields of activity? Illustrate.
7. Examine critically a number of plans designed to improve learning

outcomes through individual instruction and unit organization. Summarize concisely the respects in which they differ. What contributions to better teaching may be credited to each of the plans?

8. To what degree should all school procedure be in the form of problem-solving? Should the problems be individual or socialized and coöperative in nature? By a series of illustrations, develop the steps in the problem-solving process which are characteristic of good thinking.
9. Set forth some of the chief claims of the exponents of the so-called progressive or child-centered schools Are the objectives of the child-centered school the same as the objectives of the traditional school? Why must the aims of these two schools always be kept in mind when their products are being evaluated and compared? What are some of the significant departures of the progressive school from the traditional practices?
10. How does the teacher's educational philosophy influence her selection of curriculum materials and the use of teaching methods?
11. What changes in community life have forced the school to enlarge its concept of guidance and counseling? Suggest some of the major factors which must be taken into consideration if guidance and counseling as an integral part of the school program are to be made effectual.
12. What should be the attitude of the beginning teacher toward her supervisor? Outline what you consider to be the essential characteristics of a good supervisor and suggest the nature of the supervisory service which you feel she should render.
13. How may a traditional school be best transformed into a progressive school? What are some of the mistakes that a young enthusiastic teacher of limited experience is likely to make in effecting such transformations?

SELECTED REFERENCES FOR FURTHER READING

Wilford M. Aikin, "The Purposes of the Eight-Year Experimental Study," *Educational Record*, Vol. XVI (January, 1935), pp. 107–120.

Harold B. Alberty and Vivian T. Thayer, *Supervision in the Secondary School*, Ch. VI. Heath, 1931.

Boris B. Bogoslovsky, *The Ideal School*, Ch. VIII. Macmillan, 1936.

Nelson L. Bossing, *Progressive Methods of Teaching in Secondary Schools*, Unit IV. Houghton Mifflin, 1935.

Luella Cole, *Psychology of Adolescence*, Ch. XIV. Farrar and Rinehart, 1936.

Philip W. L. Cox and R. Emerson Langfitt, *High School Administration and Supervision*, Chs XXVII–XXXI. American Book Company, 1934.

Lester Dix and others, "Integrated Education in Lincoln School," *Teachers College Record*, Vol XXXVII (February, 1936), pp. 363–371.

Harl R Douglass and Charles W. Boardman, *Supervision in Secondary Schools*, Part III Houghton Mifflin, 1934.

Stephen P Duggan, *A Student's Textbook in the History of Education*, Ch XIV Appleton, 1927

Josephine C. Foster and Keith E. Headley, *Education in the Kindergarten*. American Book Company, 1936.

J Stanley Gray, *Psychological Foundations of Education*, Problems X-XIII American Book Company, 1935

Clyde Hissong, *The Activity Movement*, Ch I Warwick and York, 1932.

Clyde and Mary Hissong, *An Introduction to the Principles of Teaching*. Winston, 1933

Mary G Kelty, *Learning and Teaching History in the Middle Grades* Ginn, 1936

William H Kilpatrick, *Remaking the Curriculum* Newson, 1936.

—— *Source Book in the Philosophy of Education*, Ch XIX. Macmillan, 1934

Charles W Knudsen, *Evaluation and Improvement of Teaching*. Doubleday, Doran, 1932

Margaret Mead, "The Meaning of Freedom," *Progressive Education*, Vol. VIII (February, 1931), pp 107–111

Harry L. Miller, *Creative Learning and Teaching*, Chs. I–II Scribner, 1927

John J. B. Morgan, *Keeping a Sound Mind*, Ch VII. Macmillan, 1934

Henry C. Morrison, *The Practice of Teaching in the Secondary School*, Part III University of Chicago Press, 1926.

Victor H. Noll, *The Habit of Scientific Thinking*. Bureau of Publications, Teachers College, Columbia University, 1935.

Samuel C Parker, *Methods of Teaching in High Schools*, Chs. VIII–IX, XX. Ginn, 1915.

Helen Parkhurst, *Education on the Dalton Plan*. Dutton, 1929.

Bliss Perry, *And Gladly Teach*, Ch. III. Houghton Mifflin, 1936.

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Wilford M. Aikin, "The Purposes of the Eight-Year Experimental Study," *Educational Record*, Vol. XVI (January, 1935), pp. 107-120.

Harold B. Alberty and Vivian T. Thayer, *Supervision in the Secondary School*, Ch. VI. Heath, 1931.

Boris B. Bogoslovsky, *The Ideal School*, Ch. VIII. Macmillan, 1936.

Nelson L. Bossing, *Progressive Methods of Teaching in Secondary Schools*, Unit IV. Houghton Mifflin, 1935.

Luella Cole, *Psychology of Adolescence*, Ch. XIV. Farrar and Rinehart, 1936.

Philip W. L. Cox and R Emerson Langfitt, *High School Administration and Supervision*, Chs. XXVII–XXXI. American Book Company, 1934.

Lester Dix and others, "Integrated Education in Lincoln School," *Teachers College Record*, Vol. XXXVII (February, 1936), pp. 363–371.

Harl R. Douglass and Charles W. Boardman, *Supervision in Secondary Schools*, Part III. Houghton Mifflin, 1934.

Stephen P Duggan, *A Student's Textbook in the History of Education*, Ch. XIV. Appleton, 1927.

Josephine C Foster and Keith E. Headley, *Education in the Kindergarten*. American Book Company, 1936

J Stanley Gray, *Psychological Foundations of Education*, Problems X-XIII. American Book Company, 1935

Clyde Hissong, *The Activity Movement*, Ch I Warwick and York, 1932

Clyde and Mary Hissong, *An Introduction to the Principles of Teaching* Winston, 1933

Mary G Kelty, *Learning and Teaching History in the Middle Grades*. Ginn, 1936.

William H Kilpatrick, *Remaking the Curriculum*. Newson, 1936.

—— *Source Book in the Philosophy of Education*, Ch XIX Macmillan, 1934

Charles W. Knudsen, *Evaluation and Improvement of Teaching*. Doubleday, Doran, 1932.

Margaret Mead, "The Meaning of Freedom," *Progressive Education*, Vol. VIII (February, 1931), pp. 107–111.

Harry L. Miller, *Creative Learning and Teaching*, Chs I–II. Scribner, 1927.

John J. B Morgan, *Keeping a Sound Mind*, Ch. VII. Macmillan, 1934.

Henry C. Morrison, *The Practice of Teaching in the Secondary School*, Part III. University of Chicago Press, 1926.

Victor H. Noll, *The Habit of Scientific Thinking*. Bureau of Publications, Teachers College, Columbia University, 1935.

Samuel C Parker, *Methods of Teaching in High Schools*, Chs. VIII–IX, XX. Ginn, 1915.

Helen Parkhurst, *Education on the Dalton Plan*. Dutton, 1929.

Bliss Perry, *And Gladly Teach*, Ch. III. Houghton Mifflin, 1936.

Martha P. Porter, *The Teacher in the New School.* World Book Company, 1928.

Roscoe Pulliam, *Extra-Instructional Activities of the Teacher,* Ch. IX. Doubleday, Doran, 1930.

Harold Rugg, *American Life and the School Curriculum.* Ginn, 1936.

Marion P. Stevens, *The Activities Curriculum in the Primary Grades.* Heath, 1931.

George D. Strayer, George W. Frasier, and Winfield D Armentrout, *Principles of Teaching,* Chs. I, VI, IX–XIII. American Book Company, 1936.

Vivian T. Thayer, *The Passing of the Recitation.* Heath, 1928.

James S. Tippett, *Schools for a Growing Democracy.* Ginn, 1936.

Ralph W. Tyler, "Appraising Progressive Schools," *Educational Method,* Vol. XV (May, 1936), pp. 412–415.

—— "Evaluation: A Challenge to Progressive Education," *Educational Research Bulletin,* Vol. XIV (January 16, 1935), pp 9–17.

Harriet Van Antwerp, "Teachers' Evaluation of the Effectiveness of Supervisory Activities," *Educational Method,* Vol XV (May, 1936), pp. 441–447.

Carleton W. Washburne and Myron M. Stearns, *Better Schools,* Parts II and III. John Day, 1928.

Gerald A. Yoakum and Robert G. Simpson, *An Introduction to Teaching and Learning.* Macmillan, 1934.

CHAPTER XIV

EDUCATION AND HEALTH

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Improvement of the health and vigor of a great population is one of the surest evidences of general progress. The foundation of such improvement must be an advance in every phase of living which will protect the people from the menace of disease and supply them with the knowledge which will direct curative measures in case of ailment. Inventions of recent years have brought both comforts and dangers of such variety that the skill of the greatest scientists has been taxed to keep the death rate down and physical energy up. Automobiles, airplanes, motorboats, tractors, and household electric devices make travel easy and general, and decrease the drudgery of labor; yet they exact a heavy toll of accidental death. As men face these problems and solve them, their achievements are recorded as a permanent contribution to education.

Mental and emotional health is another aspect of the complex problem of continued progress in society. As speed increases, so must caution; as machinery becomes more complex, powerful, and dangerous, by the same degree men must increase their self-control, skill, and confidence; as the instruments of war become more deadly, fear must in some way be averted. Only as schools are made more attractive can children be presented with the opportunity to pass through their formative years in abundant happiness and health. In this field there is more than enough to challenge the ingenuity of every student of education. This chapter will present an overview of the subject and will attempt to defend the thesis that the individual's success in living and learning, the teacher's professional progress, and even the economic and cultural advance of society depend upon the important factor of organic health.

The Health Situation

The Health Problem. Health, unlike inanimate material possessions, does not show its full worth on the surface. United States bonds at $4\frac{1}{4}$ per cent interest are readily distinguished from other bonds at two per cent interest. A new house is conceded to be worth more than an old, dilapidated, neglected house of the same location, size, and original value. Sterling silver is worth more than cast iron. Even two articles of the same value, except for the difference in care, can be rated accurately enough for all practical purposes. People in general do not have the disposition to rate health on a finely graduated scale such as they use in weighing coal or measuring distances. A man usually considers himself well enough to work or sick enough to go to bed. Intermediate states of health are either taken for granted or ignored. Illness in stages so advanced as to menace life itself is considered a sad misfortune or the work of Providence. Abounding health, comparable in the human scale to diamonds among precious stones, is too often termed mere animal spirits. The purpose of the present chapter is to induce a more lively regard for health, which is one of man's most precious possessions.

It is true that national health is much better than it used to be, in spite of the neglect that individuals practice in their daily living Science has spread its beneficent results as far as civilization can carry them, with the result that the terrors of the past have ceased to afflict society when a case of smallpox appears. One simply wonders whether some accidental pock-mark may remain after recovery to remind the patient that he had to suffer quarantine for two or three weeks. The names of Lister, Pasteur, Carrel, Flexner, Cannon, Crile, Mayo, and many others who have devoted themselves to the alleviation of the sufferings of mankind mark stages of mastery in the conflict between science and disease. Not only evident organic ailments and functional defects, but weaknesses of the mind and the emotions have recently claimed their fair share of the scientists' attention, with the result that widespread relief has been brought to large numbers of psychopathic cases.

Vital Statistics. Estimates have recently been made showing that longevity has increased from twenty-one years during the Middle Ages to sixty years in 1930. While this type of evidence leaves something to the reader's speculation and clearly does not cover the entire health situation, yet it is one indisputable proof that, as the succeeding generations have come and gone, life has been taken care of in a better fashion. The nineteenth century and the first three decades of the twentieth century, as the records plainly show, have furnished more improvement than all preceding history.

Any view of health conditions in the United States must necessarily be a negative view, for there is no measure of how well or how strong people are. Statistics show the number of deaths at each age and from all the well-known diseases, so that, through a period of years, it is easy to determine whether any given malady is an increasing or decreasing cause of death. Changes in the percentages of deaths in the first year of life, or in periods of five years or ten years, also show the degree of control which medical science, together with improvement in the health environment and health habits of the people, has gained over disease. Such a comparison, taken from the United States Census mortality statistics of 1860 [1] and 1932,[2] follows, the reader should bear in mind that the population in 1932 was almost exactly four times the population in 1860:

TABLE VII

DEATHS FROM CERTAIN DISEASES, 1860 AND 1932

DISEASE	TOTAL DEATHS 1860	TOTAL DEATHS 1932	FOUR TIMES 1860 WOULD BE 1932
Smallpox	1,271	38	5,084
Tuberculosis	49,082	67,789	196,328
Cancer	3,292	122,739	13,168
Typhoid Fever	19,236	4,441	76,944
Pneumonia	27,094	92,474	108,376
Measles	3,899	1,941	15,596
Old Age	10,887	10,207	43,548
Accidents	18,090	85,868	72,360
Heart Diseases		268,696	..
Nephritis		104,751	... .

[1] United States Census, 1860. *Mortality Statistics*, pp. xx–4.
[2] United States Census, 1932. *Mortality Statistics*, p. 5.

Since no records were kept for heart diseases and nephritis in 1860, it is evident that they were disregarded or that they did not concern the people to any great degree. The proportion of deaths from diseases of the heart and circulatory organs should lead to investigation of the causes, as this tendency has been increasing for several decades. Smallpox, once a dreaded disease, has practically disappeared; typhoid fever, once a very common cause of discomfort and death, has been brought under control; tuberculosis, formerly feared in many portions of the United States, especially damp and humid regions, is yielding to science, but the younger people still suffer more from it than the older.

The change in longevity between 1860 [1] and 1932 [2] is shown in the following table. Since the statistics were kept in somewhat different fashion, they are not strictly comparable; yet they are indications of the conditions at similar ages in the United States:

TABLE VIII

CHANGE IN LONGEVITY BETWEEN 1860 AND 1932

AGE	1860	1932		
	DEATH TOTAL	DEATH TOTAL	MALE	FEMALE [3]
0–9	196,474	180,312	100,694	79,618
10–19	30,614	43,606	23,709	19,897
20–29	40,107	74,409	37,662	36,747
30–39	31,832	90,933	48,531	42,402
40–49	24,070	128,253	73,554	54,699
50–59	20,449	175,357	102,285	73,072
60–69	20,158	224,841	126,734	98,207
70–79	16,929	241,356	128,831	112,525
80–89	9,624	127,039	61,505	65,534

From this table, the fact is clear that 267,195, or more than two-thirds of the 390,159 deaths which occurred in 1860, were people under thirty years of age; while in 1932, to include two-thirds of the deaths, it would be necessary to count all deaths up to approxi-

[1] United States Census, 1860: *Mortality Statistics*, pp. 45–47.
[2] United States Census, 1932. *Mortality Statistics*, pp. 78–79.
[3] *Ibid.*, p. 5.

mately sixty-nine years of age. It can be seen, too, that the greatest number of deaths in 1860, excluding those in early infancy, occurred between twenty and twenty-nine years of age, while in 1932 the greatest number of deaths occurred between seventy and seventy-nine years of age. To what a great extent the hazard of early death has been removed! One may wonder, too, at the very much greater death rate for men than for women at every age from birth to extreme old age.

A study of the ages at which death from various causes occurred in 1932 shows that somewhat more than 60 per cent of all deaths from cancer occurred after fifty-five years of age, and that the greatest number in any five-year period occurred between sixty-five and sixty-nine years of age. Diseases of the heart and of the digestive system are more common after sixty-five years of age; diphtheria is most prevalent from five to nine; while tuberculosis and automobile accidents take their greatest toll between twenty-five and thirty-four years of age.

Unusual differences in the safety of life are shown by the fact that the death rate in North Dakota in 1932 was 7.5 for each one thousand inhabitants while in Nevada it was 14.4. The colored death rate varied from 18.1 for each one thousand inhabitants in Maryland to 9.4 in Oklahoma. In cities with over 100,000 population, the rate for all varied from 7.5 in Akron, Ohio, and Flint, Michigan, to 16.8 in Memphis, Tennessee. In portions of the same city startling differences exist, as in New York City, where the rate was 6.9 in Queens Borough, and 15.5 in Manhattan Borough, with the rates even worse for colored people. In Washington — figuratively speaking right under the shadow of the Capitol itself — a rate of 16.1 is recorded.[1]

Present Conditions and Trends. While the records are conclusive proof that smallpox, yellow fever, and typhoid fever have been brought under the control of medical science and sanitary living, and that bubonic plague and typhus diseases, which were formerly the scourges of Europe and Asia, have been completely barred from entrance into our country, nevertheless it cannot be demon-

[1] United States Census, 1932: *Mortality Statistics*, pp. 5–8 of Appendix.

strated that health service is available readily to all people who need it in the United States. In proportion to the population served, physicians have decreased notably in number, but their training, both as a result of competition within the profession and of laws passed by the various states, has been raised to a much higher level than that which formerly prevailed. It is the belief, too, that the number will continue to decrease for another ten years before it begins to increase again. If the total number — about 143,000 — were evenly distributed, there would be about one physician for every 850 people, but in South Carolina in 1931 there was on the average one physician for 1,350 people, while in California, at the same time, there was one physician for 560 people. No doubt, the difference in the wealth of the two states is a controlling influence in attracting the service, but it would be fairly easy to convince the reason of the public, if not its pocketbook, that this service is just as vital as education, which is conceded by all to be indispensable.

Medical service naturally is growing more and more specialized; and somewhat in the proportion that it is highly specialized, it is also localized, thus rendering it inaccessible to many who need it most and can afford it least. The medical profession prefer that the individualistic character of their service be maintained rather than that the local or state government should enter this field and provide the service either free or at cost to all who need it. Statewide attention has been given to the ethics of the situation, the claim being vigorously upheld that the state has as great obligation to supply this service as it has to furnish free education to all. Most physicians, of course, maintain that the service would deteriorate if it were completely socialized. To the credit of the physicians, it may be said that the members of no other profession give more free service than they do.

Specialization and Distribution of Health Service. Dental service, unlike medical service, is increasing proportionally more rapidly than the population in general, and the training, furnished in large measure by state universities, is much better than it used to be. One notable field of specialization is that reserved in many places

to the dental technician who prepares bridges, crowns, plates, and inlays. Perhaps as significant in this division of health is the development of the attitude that sound teeth are as important as any other of life's necessities. Formerly people suffered broken and decayed teeth and much unnecessary misery simply because there was no prevailing disposition to seek a dentist's services when any impairment was discovered. In some cases where free examination of the teeth has been furnished in connection with the public school, people objected strenuously, no doubt fearing that the examination would be followed by a requirement that the teeth be repaired, thus imposing an expense which they felt they could not afford. Fortunately, this attitude is quickly modified in those school systems where a dental office is set up and equipped in some school building and the service is supplied at public expense. Young dentists seem to covet the opportunity to serve in this capacity, apparently in the hope of building up a practice which will last long after the children have left the schools.

In 1931, the American Medical Association had registered 6,613 hospitals, in which there were almost one million beds, making an average of practically one hospital bed for each 125 persons in the entire country. This would seem to be adequate provision in view of the statement that approximately three million people are disabled by sickness at any one time; but most of these beds are in hospitals controlled by the government, so that the opportunity of the average citizen to secure hospital service is not at all equal to that of the citizen in the employ of the government. In fact, the average citizen does not have half this opportunity, as the supply of beds for community service was reported in 1928 as one to each 270 persons. As in the case of dental service, the disposition is not yet general on the part of the public to make use of the opportunity for hospital service, the poor being convinced that they cannot afford it.

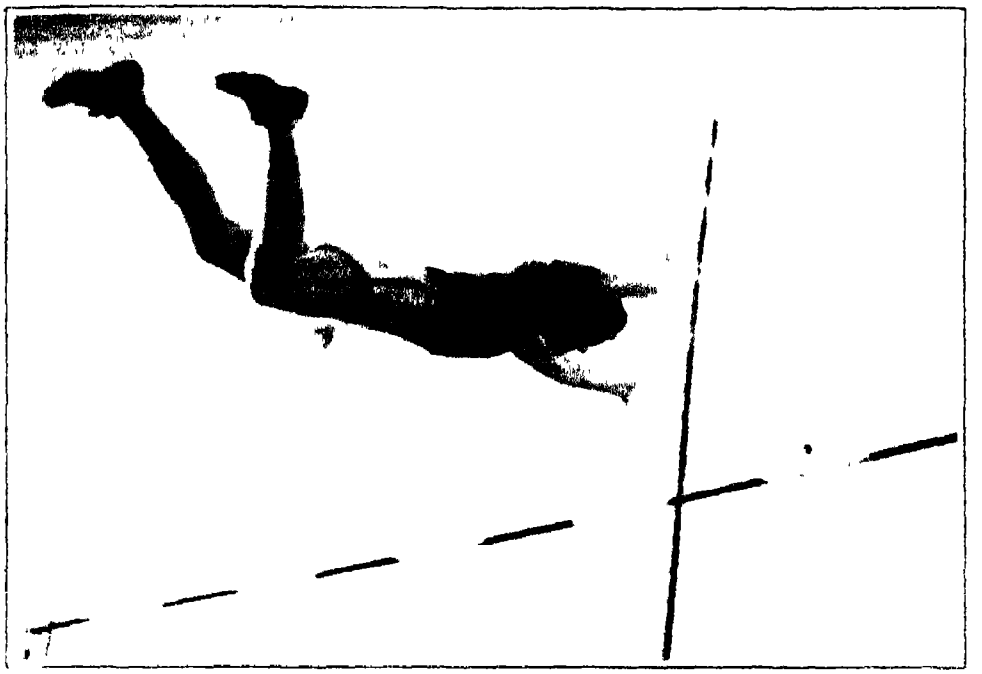
One of the best tendencies in all our health practices is the growing disposition to make use of the excellent clinics which are increasing in number and in the quality of their service. Diagnosis of all ailments is incalculably more reliable than it used to be.

Medical institutions in all large cities render a further aid to general health by inducing people to seek the advice available in some near-by clinic. Delay works on the side of the ailment, and the older attitude that one must suffer many of the common ailments simply because they are inevitable, and that most of them will disappear anyway, is giving way to the conviction that foresight, such as is provided in the clinic, will prevent sickness and lengthen life.

Nursing, an indispensable adjunct to the work of the doctor, dentist, surgeon, hospital, and clinic, continues to attract great numbers to institutions for training. However, one cannot find the high quality of preparation which the doctor, dentist, and surgeon are required to maintain. Practical nurses, so called, too often make it impossible for the well-trained nurses to secure employment at renumeration commensurate with the preparation required in the reputable institutions for training. In addition the training schools, good and bad, are graduating more nurses than are needed, and the nurses are not securing the length of training needed for superior service. As in the case of physicians, the service is not well distributed, California having seven times the supply of nurses in proportion to population that Mississippi or Arkansas has.[1] Also, there is far more use of the services of nurses in governmental agencies than among the general public.

Research in Physical Education. Most significant among recent efforts to improve the general health of the people are the efforts of university and college departments of physical education. Continued efforts to improve the curricula, equipment, and buildings with which they work have marked several of these institutions to such a degree that graduate study and research in this field have notably increased at these institutions. Basic to the majority of such studies has been the principle of the unity of the mind and body, in conformity with which a better relation between academic and physical education can be expected. Vocational education also will profit: the arts, sciences, aesthetics, moral and social standards will have an upward trend in proportion as they are

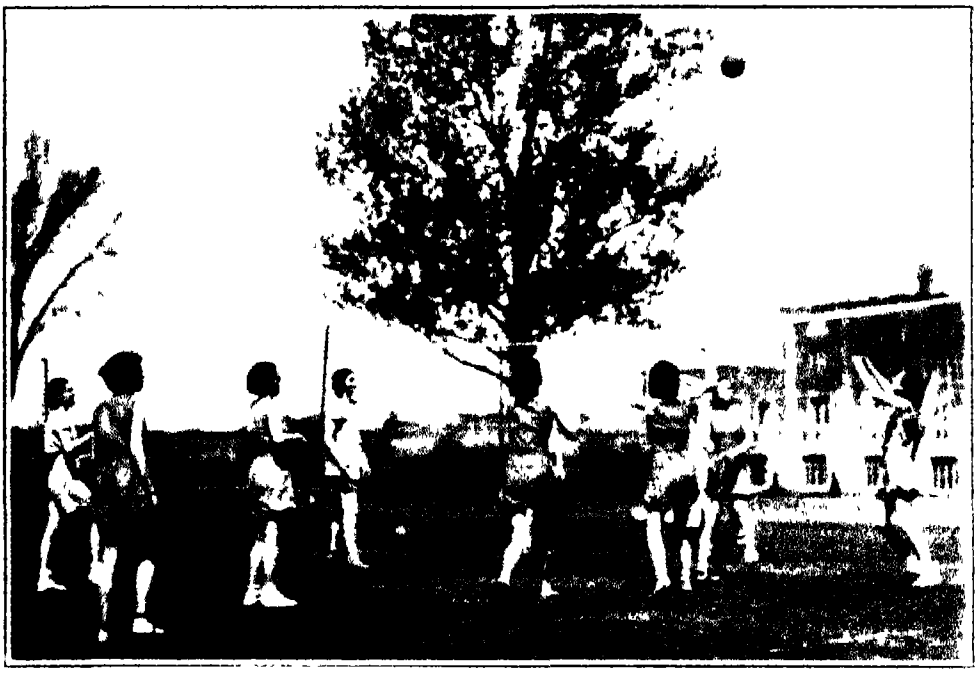
[1] *Recent Social Trends*, Vol. II, p. 1067.



Athletes Learn the Value of a Sound Body



Learning the Skills of the Game



HEALTH EDUCATION AND RECREATION FOR GIRLS



Courtesy of Reitz High School, Evansville, Ind.

THE MEDICAL UNIT GIVING TYPHOID SHOTS

Reitz Red Cross Relief Station

brought into harmony with physical education. Not the least of the advantages of such a statement of aims and their attainment will be happier and more fruitful lives for all who coöperate.

Relation of Health to Ability: Some Experimental Evidence. Dr. Abby H. Turner of Mount Holyoke College investigated the relation of scholarship and sports among the 134 women who were the highest ranking students in the college. Of these, 18.7 per cent engaged in more than the required program of sports. College physicians rated 87 per cent of the officers of college organizations above average in their health records; and it was found that over one-fourth of them were among the highest 10 per cent in the college in scholarship, and more than half were in the upper fourth in scholarship. Of 942 students graduating in the classes of 1926 to 1929, inclusive, 160 were either members of Phi Beta Kappa or had been graduated with honor. On a scale in which A, B, C, D, signified excellent, good, fair, and poor, forty-one of the 160 rated A, eighty-seven rated B, twenty rated C, and twelve either D or of questionable health. More than three-fourths of these superior students, therefore, were of distinctly superior health. Of sixty-one senior officers in a five-year period, only eight were rated C or lower, showing that the students who won social and political preferment among their fellows were young people with fine health records. Perhaps it was their healthy appearance that won the attention and favor of their fellow students. "We must conclude, then, that at Mount Holyoke the physical weakling and the intellectual weakling have little chance at a major college office."[1]

A further study of the circulation and respiration of Mount Holyoke students was reported by Dr. Turner. Data on circulation were incomplete, but interesting results of vital capacity, defined as the greatest possible expiration after the greatest possible inspiration, were shown and compared with records of Wellesley students taken several years before by Dr. Turner. Records were made by blowing into the spirometer, the expired air displacing a certain amount of water in a vessel in which graduated measurements show the success of the subject being tested. The Mount

[1] *Symposium on Physical Education*, New York University. Pp. 139–154.

Holyoke students averaged six per cent better than the Wellesley students, and the two studies, including 1,150 measurements at Wellesley and 1,300 at Mount Holyoke, afforded the basis for a standard with which to compare women students in all similar colleges. To find the significance of vital capacity, Dr. Turner selected all students 15 per cent or more above the average in vital capacity and compared them with all students 15 per cent or more below the average in vital capacity. There were 123 of the former group and eighty-six of the latter group. The girls of high vital capacity were enthusiastic over the experiment. They liked to blow the spirometer, to try repeatedly to excel their records. They were broader shouldered, played wind instruments requiring lung capacity, took part in hockey, baseball, soccer, and basketball, and swam "a lot," a mile to three miles at a time. Some had done active farm work.

Girls with low vital capacity came into the office out of breath from climbing the stairs; many were small and underweight, and their color was bad. Health histories showed bad records of sickness, little participation in sports, and some heart disabilities, while few were good swimmers. During four years in college, girls who were originally high in vital capacity remained at the top in vital capacity, their development having been almost complete when they entered. The "lows," however, varied considerably: three went still lower, eight of twenty-six improved enough under the régime of physical training to rise above the record of the inferior group. These eight students who rose above their original rating induced the department of physical education to undertake special work with a selected group of students whose vital capacity records were inferior. It was a source of satisfaction to find a significant improvement in a majority of all who undertook the training. Even though ordinary development of lung capacity does not take place in the earlier years, these experiments prove conclusively that worthwhile improvement may be secured in college years. The shrewd guess is made that physiological soundness in general may depend on this factor of vital capacity.

Somewhat similar studies at Amherst College have shown that

during four years of college experience young men gain approximately 25 per cent in muscular strength, which is more than three times the gain shown in any other physical measurement. "The muscles increase so much more in strength that we are led to believe the difference was probably caused by changes in the muscle fibres, partly resulting from the active physical life of college men." [1]

Preparation of Teachers

As in every other field of education, preparation for health work takes place on many different levels. Those young men and women who plan to enter their work in teaching with the barest minimum tolerated by the law will know little beyond the requirements set for their certificates. At other and higher levels, the importance of health will be studied only as it relates to other preparation. For example, a small town superintendent whose employment necessitates many hours of teaching may study health as it relates to citizenship, geography, economics, and industry, but do comparatively little to affect the health of the community in which he teaches or of the pupils in the school he administers. In a high school of superior standards, an athletic coach may put into effect any number of practices which will modify the health of the boys whom he is training. In addition, he may teach a class in physiology including considerable work in hygiene and sanitation. The gymnasium, as a part of the equipment of the school, offers further opportunity for the practice of those phases of daily living which can be termed more distinctly health habits as distinguished from the athletic or social phases of the coach's work. All these things the coach may do and not be a health specialist, for he has probably been employed by the board of education to direct the training of the athletic teams and teach whatever other classes the schedule of recitations or the convenience of the administration requires.

At a still higher level — in a college or a university, for example — all health work will require a separate organization under the direction of a specially trained physician. This doctor will not be an

[1] Fowler D. Brooks, *Psychology of Adolescence*, pp. 49–50. Houghton Mifflin, 1929.

ordinary practicing physician transferred to a position in a college, but one who has studied medicine and health practices in relation to a school system and the needs of the general public. Such a preparation would include, besides professional work in education, physiology, anatomy, medicine, the history of athletics, biology, chemistry, pharmacy, methods of teaching health, kinesiology, the psychology of play, first aid, tests and measurements in physical education, mass athletics, scouting, and study of some of the emotional effects of interest in athletics. A staff of assistants will be at the service of such a director, each specially trained for the division of work assigned to him. Furthermore, the work for men will be separated from that for women and will always be designed not only for the improvement of the health of the students themselves, but also for the improvement of teachers of health work in schools of lower rank. The effects of such an organization would be expected to reach the most isolated and the most underprivileged school in the course of time.

The Teacher's Health. No widespread survey of the teacher's health has been made, although intensive studies in certain cities have been made. From these studies, tendencies can be discovered which should be a help to the teacher herself and a basis for the guidance of school authorities in the employment of teachers. Mortality statistics are not discouraging, though it seems clear that diseases of the lungs affect teachers rather more severely than they do workers in other vocations. Absence from their teaching duties affords another criterion for estimating the constancy of the teacher's working capacity. Women are absent anywhere from five to ten per cent more than men. Diseases of the lungs, of the digestive system, and of the nervous system are the chief causes of absence for both men and women. Activities of teachers in the hours after instruction do not encourage the belief that they do much to maintain a high level of physical vigor. Relaxation of some variety seems to head the list, with limited domestic duties second. Walking, reading, and gardening are about as strenuous exercise as a majority of teachers ever undertake. Of course, this is considerably more true of women than of men.

Change of season modifies the type of activity, though it is not known that one season brings a more beneficial effect than another because of the exercise it induces. Winter sports, especially skating, and swimming in summer attract the interest of teachers in the localities where these sports may be followed, but the percentages shown in exact studies are too small to credit them with a large effect on the health of the whole teaching body. Coming as it does after hours of close confinement in a room where the air is not the best, exercise is sure to lack vigor or to be neglected altogether if it is not planned. Likewise, the tendency to be spectators at professional baseball and football games and at the highly advertised exploits of a few unusual amateurs interferes with reasonable exercise by the teacher herself.

If the school administration would plan games for the teachers, provide apparatus as needed, furnish locker-room space as carefully as for pupils, no doubt there would be an increase in their participation. The teachers themselves under present motivation provide the greatest obstacle to improvement. Their conscientiousness about their teaching keeps them too closely confined, and the influence of administrators is either negative or altogether lacking. Imagine the result if the health of teachers were inquired into as carefully as their certificates are inspected or their professional reading listed!

The health of teachers would be improved, first of all, by the adoption of a more contented attitude toward life and especially toward the duties of teaching. Teachers are characteristically serious — almost desperately serious about their work. Disciplinary difficulties appall them; they feel that their professional lives are coming to an end if disturbances occur too often in their classrooms. Consequently, they worry too much, and this worry invites more disturbances. They complain that the routine duties assigned by administrators and supervisors mount up to unreasonable proportions. They often feel that local censors of morals and behavior are particularly inquisitive and set standards for them which are required of no other citizens who influence the pupils. After a few years, they often feel that it

should be no surprise to anybody if they develop a sour and fault-finding disposition.

Contentment, of course, cannot be assumed with the ease with which one puts on a garment. Nor is it to be had simply by asking someone in authority for it. Furthermore, it should not be taken as a synonym of easy-going inactivity or inefficiency. Contentment of the highest type must be earned by a well-ordered plan of work and study, play, the best fun available, and reasonable relaxation. Coöperation of administrators and teachers is needed to achieve this, but the teacher can secure them even if she has to seek them alone. Rising standards for the preparation of teachers will definitely affect the work and study régime, supplying every classroom teacher with an abundant fund of interesting, worthwhile material for daily use. No one can estimate accurately the contribution to health that comes from confidence in one's ability to call upon a store of reliable knowledge and present it convincingly through the media of explanation, demonstration, or apt illustration. Such confidence, aided by a supply of good humor, spreads from the teacher to the pupil and helps to create the atmosphere in which healthy minds and bodies thrive. Conversely, a few days of doubt as to one's ability to hold the attention of pupils, or to lead their thought to higher levels, may easily upset one's digestion or lead one to believe that the superintendent, principal, and all the influential citizens are in a conspiracy to wreck one's professional career.

Active play and recreation need some incentive to enable them to hold their place in competition with interest in teaching and allied duties. A hobby of some sort can call into exercise many of the organs and functions of the body so effectively that tomorrow's teaching will inherit the good fortune of an entire day's success, but there must be a zest, an appetite, a thirst for the exercise that will compel one's efforts. Go out and beat "old man par" today — or better, beat that presumptuous rival of yours; get out with your camera and get a picture that will win a prize, or at least the admiration of your friends; raise some flowers if you will, and see that they are better than commonplace; walking has its merits as

an exercise, but the automobile almost crowds it out of consideration. It will need to be associated with some interest more compelling than mere walking. If nature study can lead one far enough, walking will provide the exercise. Perhaps if one should choose to live just far enough from the school so that the regular walk would be stimulating and not crowded out by the easy use of the car, health would benefit. Above all, one should not be a Jack of all exercise and proficient in none.

After work and play, relaxation has its claim on one's time. Regularity in this respect counts more perhaps than in any other phase of the teacher's health program. The body cannot be cheated in respect to its rest and continue to present a vigorous front to its duties. No doubt sleep ranks first as a means of restoring energy; certainly men responsible for great organizations dependent on the energy of their men insist on it. Sleep that is free from anxiety and worry, sleep that comes quickly and continues undisturbed by tomorrow's responsibilities, adds freshness to the next waking hours and years to the coming decades of life. A great deal of relaxation can be attained during working hours, too, if one studies to secure it. A national champion in tennis was observed in an important match to put every ounce of energy into his efforts while the ball was in play. He appeared completely relaxed, however, as he walked back to his position for the next service, and throughout the match he refused to be hurried while the ball was not in play. Perhaps many tensions that waste the teacher's energy could be avoided in the same manner.

Reasonable protection against the rigors of the weather, especially sudden changes in the weather, demand foresight on the part of the teacher. As teaching takes place during the late fall, winter, and early spring in a temperature that is relatively unvarying, the outdoors may on many occasions present real hazards to health. Rain, snow, wind, and sudden cold demand that clothing be adapted to unexpected eccentricities.

Health Examinations for Teachers. If examinations of growth and health are reasonable for the children in the schools, some estimate of the teacher's condition is inevitable. No logic could justify a

procedure under which the responsible official is allowed to care for the health of others and have no check on his own health. Children are excluded from the schools whenever they are a possible source of contagion, or whenever they are not strong enough or vigorous enough to do their work. A lower standard for teachers is indefensible; yet no investigation shows a general requirement of this character. To argue that their professional pride should care for this, or that their economic responsibility will keep them in condition to discharge their teaching duties, is to beg the question and to leave the results to chance. Whatever administration is set up for estimating the physical condition of the children and providing a plan for their training should include the teachers. In the United States it is generally accepted that such plans, wherever they exist, should be in charge of the state and local school organization, in order that no curriculum conflicts may arise. In Italy, for example, the Facist Party directs the ideals of such work. Suppose the United States army officials were given control of the health program, with power to install health programs and provide the training needed to achieve their ideals. At the one place where such authority does exist, the land grant colleges, an endless amount of altercation has already occurred over the imposition of military training. In Germany, the physical education program is kept separate from military training and considerable attention is paid to the selection of teachers to make sure that they have a real interest in play and games, but not even here is it easy to find evidence that elementary teachers in service are required to take regular health examinations. In England, courses of study for the training of elementary teachers include physical training, both theory and practice, as in the United States, but there is no clear evidence that these teachers when accepted in service are subjected to regular health examinations. France requires gymnastics of the teacher in training. In the United States, such work usually does not give credit toward graduation unless the prospective teacher majors in physical education.

Socialized Medicine. It is the belief of many social leaders that public responsibility is as great for the health of the people as it is

for the security of the aged or for the employment of able-bodied men who are willing to work. One may ask why any needy citizen in a democratic country should be obliged to do without medicine, dental service, or the aid of an oculist. Theoretically, as good argument could be supplied for general free attention to health as for education itself. Indeed, it is a clear implication of a compulsory educational system that every child compelled to attend school shall be in good physical condition to attend. Possibly an evolution similar to that which occurred in free education may need to occur in respect to health service. No one needs to declare himself a pauper in order to secure the privilege of free instruction for his children. An uneducated people is considered a menace to democratic institutions. It could be argued equally well that a people whose health is left to the vagaries of chance is as much a menace. The medical profession is openminded on this question at present, and the people have not developed the disposition to insist on any such service; so the movement has gone by default, except that it has been the subject of state-wide debate. Dr. Ray Lyman Wilbur has been quoted often in favor of laying the cost of medicine and medical service on the tax levy and thus enabling many who deny themselves for the sake of economy to have the service when it is needed. The Julius Rosenwald Fund has published reports of medical surveys and various cooperative efforts to spread the cost of medicine, while the American Medical Association presents a spirited defense of the present system.

Administration of Health Education

Procedure in Cities. In city systems, the superintendent will plan, directly or indirectly, the entire organization of the work. The selection of assistants, the making of schedules, the division of time in the daily program, the apportionment of funds in the budget, the purchase of supplies and equipment, the coördination of sports and organized games with the health program, will all come before the superintendent for final decision. In the larger cities department heads will relieve the superintendent of all minor de-

tails, but he will still be responsible for the recommendation of policies. An example of such planning could be taken from the experience of a moderate-sized Midwest town. The superintendent recommended to his board the following organization: one full-time nurse, under the direction of the superintendent; two part-time nurses, under the direction of the head nurse; one dentist, half time five days a week, under the direction of the superintendent. Instructional work of these four health specialists is all under the direction of the supervisor of teaching. All regular teachers report symptoms of ill-health or sickness to this staff, and proper corrective measures are taken at once. If it is necessary, visits to the homes of the pupils are made and coöperation with parents is secured as far as possible. The 1934–35 [1] report shows the following record of service:

Service	*Cases*
Fitted with glasses	207
Ear defects treated	12
Tonsillectomies	119
Physical examinations	2,441
Rapid classroom inspections	8,452
Home calls	1,308
Telephone calls	1,611
Notes to parents	6,784
School visits	714
Conferences with superintendent	37
Conferences with principals	233
Conferences with teachers	121
Conferences with pupils	135

Emphasis is laid on the service rather than on the report, as is shown by the following cryptic sentences: "Doing all these things demonstrates their industry. Keeping a record of them demonstrates their zeal as report makers." [2] Further insistence is laid on the necessity for flexibility in the organization so that service can

[1] *Superintendent's Annual Report, 1934–1935, East Waterloo, Iowa*, p. 43. Address, Supt. Jack M Logan.

[2] *Ibid*, p. 44.

be given whenever and wherever it is needed. In addition to the services recorded, the health staff works in close coöperation with the home-making department, since the relation to health is obvious in both sewing and cooking. Another contact constantly maintained is a close coöperation with the attendance officers in order that control of any plans inaugurated may not be lost.

County Plans. Administration of county systems depends largely on the preparation and foresight of the county administrative officer as well as on the laws in force in the state specifying a health curriculum. If there are no laws requiring the teaching of facts about health or the training in health habits, the probability is that the teacher's time in almost all rural schools will be given almost wholly to the fundamental book subjects of the curriculum. In the absence of state laws, qualified supervisors, printed courses of study, and practice in health, only chance will prevail in favor of a health program.

If there is a plan designed for general use in an entire county as in some of the southern states, its effectiveness depends on the degree of contact the county superintendent maintains with the teachers in the rural schools. If the superintendent makes two or three visits to each school during the year, inevitably he cannot be a strong influence; if, however, a special supervisor for health is employed, much can be done. A well-trained specialist can be secured, visits can be made regularly, and the teachers can be trained to coöperate. This is the procedure in many county systems.

State Administration. Usually state administration rests on a concerted plan originated by experts in the fields of health, psychology, and education. A statement of aims, an outline of practice, and a means of checking the efficiency of the training are generally printed and circulated in a manual on health education. To make these successful, state laws requiring the teaching and supervision of such work must be in force. Scientific knowledge of the place of play, study, fatigue, rest, diet, and growth underlies such plans. The time is definitely past for health instruction to rest upon emotional sets, prejudices, unsubstantiated opinions, and fads. Through state supervision much progress is being made.

Emotional Stability

Too little attention has been paid to the varied effects of emotional experiences in daily life. Ordinarily emotion is regarded as simply a means of relieving one's feelings, or of adding emphasis where it may or may not be needed. In many cases it can be classified as a long-standing habit, an accompaniment of high-tension activity which causes one to rush through work with resentment, or to hurry along with joyful exercise of superabundant physical energy. The habit leads some to indulge in moroseness, regrets, and inferiority complexes, interfering notably with the effectiveness of their work and the ease with which they meet their daily social obligations. Some people in authority cultivate exceptionally stern and severe attitudes when dealing with subordinates, thinking not of the effect upon all the physical functions of their co-workers, but of some degree of obedience or submission which they wish to induce. Some few are so deliberate or so indecisive that they exasperate all with whom they deal. Adolescents storm through the home or school with characteristic boisterousness and destructive awkwardness, little thinking of the devastating effects upon those who may be nervous or in indifferent health. On other occasions their good will is the enlivening element of the home or school and justifies the high regard people have always had for youth at its best. Some make a fetish of their fears, their conviction that nobody likes them, their certainty that someone is unjustly opposed to them or purposely malicious in all dealings with them. Teachers fail in many instances to establish a pervading atmosphere of cheerfulness in their recitation rooms, possibly because they never give a second thought to the idea that a cheerful environment is the best condition for efficient and healthful work.

In all these circumstances a satisfying type of behavior seems to accompany a controlled emotional experience. Observation and experiment both warrant the conclusion that health is a vital issue in every case. Respiration is modified as emotional control is won or lost; circulation increases or decreases as favorable feelings are

present or absent; metabolism is modified as vigorous expression of feeling is cultivated or neglected; digestion is furthered or balked by reasonable or unreasonable attitudes. Dreams, varying in nature from the terror-inspired type to those depicting the fulfillment of fondest wishes, follow readily upon indulgence in daytime emotional experiences. Many glands of the body, notably the thyroid, pituitary, and adrenal, discharge their secretions in greater or less quantities as the emotions are stimulated. Evidently the colloquial command, "Hold everything under control," applies with striking force to the beneficial effects of emotional self-control. The tremendously stimulating character of lights, noises, radio, motion pictures, and high-speed travel does much to prevent emotional tranquillity. A more liberal stimulation of the emotions should be sought in some experiences that are seldom overexercised. Admiration for the beautiful, delight in the achievement of worthy efforts against odds, satisfaction in moral accomplishment, all effect favorable functions in the body and contribute to a more balanced health status.

Undesirable Emotions. Fear heads the list. Wild animals, uncivilized people, natural phenomena which were either misunderstood or not understood at all, and superstitions of all sorts have done great violence to the emotional life of people in the past. In their place in modern times are substituted many dangers associated with the mechanical régime of today. These latter can be fairly well understood and controlled, however, while primitive fears were the outgrowth of ignorance and helplessness. As society becomes more civilized, the causes of fears decrease.

Anger is scarcely second to fear in its dire effects, and certainly is even less justifiable. Excessive anger consequent upon extreme provocation might be excused in undisciplined people or in people of very low intelligence, but no type of emotion is more futile in the behavior of people who have a degree of understanding of mental life. It solves no difficulties. In fact, it usually makes them worse. It robs a person of composure and good appearance because of the derangement of various physical functions. It defeats understanding and usually creates enmity. The assumption of the

appearance of self-control and cheerfulness does much to bring about the reality.

Remorse, regrets, distrust of oneself, inferiority complexes, bitterness, distrust of the world in general, might all be classed as negative feelings that do more to destroy efficiency in life than all the material difficulties man can experience. Digestion deteriorates, nervousness comes on apace, steps lag, and all sprightliness of behavior disappears. Evidence has accumulated from the numerous studies of conditioned behavior that undesirable emotional states have these outcomes to the great disadvantage of health.

Positive emotions, which with their outcomes are the opposites of those briefly described above, are the basis of the hopeful and vigorous activities of life, and are consequently great contributions to health. The enjoyment of work should equal the enjoyment of play, and result in a physical uplift approximately as great, when work accords with desire. It has been asserted that few people ever work hard enough at tasks they enjoy to do any great injury to their health. Desirable emotions can also be cultivated in connection with the work of others. The achievements of inventors, industrialists, research workers in medicine, surgery, or electricity; of social workers in the great cities; of faithful public servants whose ideals are above the sordidness of partisan politics; of artists who do much to beautify life, and of religious leaders of the highest type can all be used with inspiring effect. Especially helpful in this field are the many well-written biographies of recent date. Unfortunately, some famous public characters have been selfish and dishonest, but their lives could be used to exemplify the defense that is needed in social progress.

Health Plans and Practices. To illustrate the health activities that can be carried on in an average-sized school system, reference to school reports is most instructive. In an Illinois city in which the school enrollment for 1935–36 was 2,133, a health curriculum was devised with the three aims of: (1) "instructing the children so that they may conserve and improve their own health"; (2) "establishing in them the habits and principles of living throughout their school life and in later years which will assure abundant

vigor and vitality"; (3) "helping parents become familiar with the health program of the school, so that there may be complete coöperation between the practices suggested by the school and carried out in the home."

In accordance with these aims, units for the teaching of health were planned for every grade from the third through the eighth. These units included: studies of food and correct habits of eating; correct habits with respect to rest, sleep, and ventilation; habits and practices with respect to safety; the effect of fresh air and sunshine on health; exercise and posture with relation to health and good looks; personal and community cleanliness; sanitation as a means of protection; sense organs and their relation to the proper functioning of the body; how the knowledge of anatomy, physiology, and hygiene aids in proper functioning of the body; how a knowledge of the nervous system aids health; and how a knowledge of the circulatory, respiratory, and excretory organs and functions aids health. Plans were being made for units appropriate for the first and second grades. In addition, the social science, general science, and art units were so devised that they correlated closely with the health unit. A program of club activities and play activities enabled supervisors to put into practice the units for the various grades. Athletics appropriate to primary, intermediate, and junior high school development were planned on the basis of the suggestions of the White House Conference on Child Health.

Services of school nurses were supplied at an average cost for the year of $1.20 per pupil. Sight-saving classes were maintained, and tutors for crippled children were supplied. Cafeteria sales of $2,823 indicate adequate provision for all who wished to buy their lunches at the school building. A budget item for substitute teachers leads to the inference that proper attention was given to temporary illness on the part of teachers. Examination of the causes of absence, totaling 8,543 cases, indicates that a basis for remedial work was constantly being sought. While no statement of physician's or dentist's services is made, items in various tables show that numbers of examinations were made, followed by recommendations to the board for appropriate remedial work. Comparative records

through a succession of years enabled the administrators to anticipate budget allowances for such service.[1]

Eugenics

No consideration of health is complete without a presentation of the aims of the emerging science of eugenics. This movement seeks, through positive efforts, to increase the number of well-born, healthy, intelligent individuals in society. Negative efforts seek to prevent the reproduction of the unfit, such as idiots and imbeciles, who can never be of any benefit to society or satisfaction to themselves. The constant expense to the public resulting from the upkeep of insane asylums, and of hospitals for those afflicted with loathsome and incurable diseases, is evidence of the need of the negative phase of this work. Individualistic tendencies accompanying our entire democratic history have rendered it extremely difficult for the state to interfere with the liberties of people in respect to marriage and parenthood. If a state passes a sterilization law, or even a law requiring a health examination before marriage, it is a very simple matter for the parties to the expected marriage to step across the state boundary and be married in another state. Obviously, it will be impossible to exert any great degree of control over marriage until national laws are passed and put into effect. Neither the passing of laws nor their administration will occur before there is a sentiment in favor of such a movement. Great care must be taken, of course, to see that no injustice is done to normal members of society. Family records showing the health, intelligence, and economic status of any person whose marriage is in question must be available; officials trained in all the sciences necessary for judging social and physical fitness must be employed. Still more important for some years, possibly for generations, teachers in the schools will need to show the great social waste consequent upon the necessity for spending immense sums of money on those who can contribute nothing to society.

[1] *Continuous Self-Survey of Elementary Schools of Elmhurst, Illinois, 1935–1936.*

It must become a reasonable, common sense idea that the defective, especially the idiot and the imbecile, must not be born. Naturally those suffering from any cause before or after birth must be cared for, but for people to continue to be born predestined to the worst conditions to which the race is heir is simply to admit that nothing can be done.

Improving the Race. More is known about improving plant and animal species than is known about the improvement of the human race. The principles discovered by Mendel have been applied with untold benefit to the whole plant and animal world, because direct control is so easily possible. Not so with human beings. Nobody can tell just what traits are most desired in a human being, because there are so many of them that are desirable and because they vary so much. Furthermore, it is only by indirect influences that the finest members of society are brought to desire the society of others like themselves. Given sufficient time and proper leadership, it should be possible to select the bright minds, the healthy, vigorous personalities in school and in vocations, and by rewarding their efforts constantly, bring them into more frequent association with one another. The homes they establish will be the most cherished product of all the moral, physical, and educational efforts of the state, for from them will come the perpetuity of a better society.

Reluctant as society is to consider the need of controlling the quality of future generations, it must be done. No intelligent person can read the reports from institutions for the mentally defective without being convinced that society appears to be on the down grade, and that poor heredity is probably the greatest single cause. At the same time the more intelligent families have failed to reproduce themselves; that is, the birth rate is distinctly less than two children for each family. The sentiment favoring the increase of a better population and the decrease of those admittedly harmful to all that culture holds dear must be created. Laws cannot be passed, nor their operation effected, until such sentiment is created, and no forum for this purpose is better than the press, and the college and university classroom. When the

younger generation accepts this view, society will be its debtor in all ages to come.

Framing a Health Program

Responsibility of School Officials. Public school officials, since they are under the immediate observation of the people who support them, are eager to satisfy the wishes of influential leaders. Parents are sensitive to the progress of their children through the grades — anxious, indeed, that they proceed regularly, and that they graduate with some degree of distinction. Elementary education has long been considered a necessity for normal children, and recently, owing to the increase of wealth and unwillingness of industry to place adolescents in competition with trained adults, secondary education has come to be looked upon, if not as a necessity, at least as a privilege to be highly regarded by all who can afford it. In the measure that a health program can promote these plans, it is quickly adopted and put into practice. State laws in many cases make it an obligation for communities to maintain a minimum program for the teaching of information about health and in most cases to supplement this with a reasonable régime of practices designed to promote good health. Sometimes this movement runs to an athletic program which wholly overshadows the proposed health ideals. Indeed, people are led to spend money generously for competitive sports under pressure of publicity while the sane health practices languish for want of proper presentation by a vigorous leader.

Whoever is responsible for the framing of the health program of a school system will first need to make some statement of the aims and methods to be employed, together with a statement of the probable expense. Just as few people set out on a direct quest for money, since it is what money will secure that is the real desire, so few seek health as a direct aim, for it is what one can do with health that is the real concern. In cases of extreme ill-health, there are many desirable things that one may not do at all; and in cases of very superior health and strength, there are unusual privileges both in play and work. The development of the power

to perform the desired acts of life will be the highest aim of the director of physical education. Since it is known that power develops as one grows, the adaptation of activities to the successive ages and grades is a study requiring the ingenuity of all who work together to promote health. Furthermore, even in any given grade there are great differences in the capacity of children to profit by the exercises decided upon for the grade. Intelligence, too, keeps pace with the growing body and must not be neglected in the program. Any well-designed plan recognizes the unity of the physical, mental, and emotional nature of children and graduates its activities accordingly. Circulation, digestion, respiration, elimination, assimilation, and nervous reaction all contribute to a well-rounded process of living; so the well-trained child, according to his grade of intelligence, will be instructed in the functions concerned. Some general statement of aims such as the foregoing can be expanded as the occasion demands or be made more concrete and simplified in its expression, but it is a necessity in the inauguration of every health program.

QUESTIONS, PROBLEMS AND CHALLENGES

1. How does the health of young people from twelve to fifteen years of age compare with the health of people thirty to forty years of age? On what basis would you decide?
2. How much concern should an algebra teacher have for the health of her pupils?
3. Would it be possible for a successful college student to avoid all colds and headaches for a period of six months? If so, how?
4. Since smallpox is almost a non-existent disease, how necessary is vaccination for its prevention among school children?
5. How much responsibility does the history teacher have for the recognition of an ailment that befalls one of her pupils during a recitation? Is she responsible for the application of a remedy?
6. Present arguments to justify free medical service.
7. Think over a representative group of people in your home community. What percentage of them should have better health?
8. What changes have occurred in American diet in the last century? How much has education had to do with these changes?

9. Do the competitive high school and college sports require more of the students' time and effort than is justifiable? Assemble proof from local and general sources.
10. Is discussion of eugenics justifiable for high school students? For college students?
11. Assemble proof for the statement in the text that digestion is affected by emotional attitudes.
12. Compare the health of pupils who are often absent with the health of pupils seldom absent.
13. Does hard work shorten life?
14. What vocations offer hazards to health because of dust, poisons, exposure to heat and cold, and accidents?
15. Of those people who live to old age, how many have long-lived parents?
16. Is the prospect for long life just as good in one state as in another? In one city as in another?
17. What bearing has the teacher's health on the following:
    (*a*) Her enjoyment of teaching.
    (*b*) Her success as a teacher.
    (*c*) Her social value to the community which she serves.
    (*d*) The behavior of her pupils.
18. Why is health regarded as one of the most important of the cardinal objectives of education?
19. What bearing has the health objective on the following:
    (*a*) The selection and organization of curricular materials.
    (*b*) Adaptation of materials, methods, and school organization to the appropriate needs of all children.
    (*c*) The achievement of success by all pupils.
    (*d*) The cultivation of a sense of humor.
    (*e*) The selection of teachers.
    (*f*) The organization and administration of health and guidance clinics.
20. Is it possible for teachers and pupils to become morbidly health-conscious? How can this attitude be prevented?
21. What is the aim of "physical education"? What objections do you see to the term?
22. Make a list of health fads in your community and indicate what the teacher can do in helping educate children against these evils.
23. What is health education?

SELECTED REFERENCES FOR FURTHER READING

May Ayres, Jesse Williams, and Thomas Wood, *Healthful Schools.* Houghton Mifflin, 1918.

William H. Burnham, *Wholesome Personality.* Appleton-Century, 1932.

Otis W. Caldwell, Charles E. Skinner, and John W. Tietz, *Biological Foundations of Education.* Ginn, 1930.

George E. Carrothers, *Physical Efficiency of Teachers.* Bureau of Publications, Teachers College, Columbia University, 1924.

Louis I. Dublin and Alfred J. Lotka, *Length of Life* Ronald Press, 1936.

Clark W. Hetherington, *Social Program in Physical Education.* World Book Company, 1922

Joseph Jastrow, *Sanity First.* Greenberg, 1935.

James Kerr, *Fundamentals of School Health.* Macmillan, 1927.

Jay B. Nash (Ed), *Interpretations of Physical Education,* Vols. I–V. A. S. Barnes and Company, 1931–35.

—— *The Organization and Administration of Playgrounds and Recreation.* A. S. Barnes and Company, 1927.

Recent Social Trends. Report of the President's Commission on Social Trends. McGraw-Hill, 1933.

Laurance F. Shaffer, *Psychology of Adjustment.* Houghton Mifflin, 1936.

Mandel Sherman, *Mental Hygiene and Education.* Longmans, Green, 1934.

Thomas Storey, *General Hygiene.* Published by the author, 1926.

Percival M. Symonds, *Mental Hygiene of the School Child.* Macmillan, 1934.

J. E. Wallace Wallin, *Personality Maladjustments and Mental Hygiene.* McGraw-Hill, 1935.

Jesse Williams, *A Textbook of Anatomy and Physiology.* Saunders, 1926.

Thomas D. Wood and Clifford L. Brownell, *Source Book in Health and Physical Education.* Macmillan, 1925.

CHAPTER XV

EVALUATING OUTCOMES OF INSTRUCTION

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The Need of Evaluation

The foregoing chapters have stressed objectives, methods, and practices in education. The present chapter has as its aim the examination of methods of evaluating the outcomes of instruction. Such outcomes must, in the nature of the case, serve as the ultimate criteria of success in education. Education is said to succeed to the extent that individuals who come through our schools are more successful, according to the various social standards, than are those who have not come in contact with formal education.

If education is fundamentally a matter of having certain experiences, why can we not take the outcomes for granted? If an individual is primarily a product of experience, why do we have to be eternally vigilant, in education, regarding the outcomes of our efforts? There are a number of reasons for this. First, the need of measurement exists because of the imperfections in our educative processes. If our methods were perfect, if we always accomplished our specific objectives, one of the present needs of educational measurement would not exist. Second, we must resort to evaluation of outcomes because we are not sure of the validity of our objectives. We are continually experimenting with curricula, with general objectives, with techniques; and the degree of success observed in the outcome is taken as the measure of the success of the experimentation. This experimental approach is necessitated not only by the inexactness of knowledge, but also by changing social conditions. Third, pupils do not profit equally from

instruction. It is desirable to detect differences among them as a basis for guidance in further instruction. Fourth, not all teachers, school systems, and educational theories and practices are equally effective. We evaluate outcomes in order to determine their efficiency. Fifth, there are certain psychological principles which make it impossible to predict in advance what effect a given instructional situation will have. It is not so much the nature of the objective event (the lecture given, the selection read, the experiment made) which counts as an educational factor as it is the effect, the manner in which the event is experienced. There are three factors which determine the educational significance of a situation: the nature of the situation itself, the manner in which it is presented, and the nature of the pupil. The pupil's intelligence, his past experiences, interests, moods, purposes, and the like govern his receptivity to educational procedures. Hence, the teacher must rely upon measurement of after-effects, since she cannot determine in advance what the outcome will be.

The educator's task is further complicated by the fact that professional education is only one of the educational forces. Homes, churches, books, magazines, newspapers, radios, friends, disinterested persons, and even the elements and physical events without number share in the educative processes.

The Scientific Method in Education

Some Characteristics of Science. (1) Science avoids extravagant language. The spirit of science is one of inquiry, not of persuasion. Passionate and eloquent language carries convincing power which is inimical to impartial reflection. A kind of halo attends sparkling epithets, colorful adjectives, and high-sounding phrases, which compels conviction where the same idea, supported by the same facts, more moderately expressed, would fail of acceptance. Beauty of expression diverts attention and renders critical reflection more difficult. Science, therefore, very appropriately maintains a spirit of humility and simplicity.

(2) Science is not concerned with value except when value is

taken as the object of research. The scientist is trained to ignore the possible value of the outcome of research once it is undertaken; that is to say, he is trained to follow approved methods of research without regard to outcome. Science takes this precaution in order to insure, in so far as is possible, unbiased results.

Educators, on the other hand, are naturally concerned with value, with the practical outcome of research as it relates to improved teaching procedure and the social utility of instruction. Some of them have condemned, as unscientific, educational research which is not educationally valuable. Thus a prominent educator has asserted that:

> The traditional curriculum offers sufficient resistance to educational progress without being reenforced by a testing program carrying the newly acquired prestige and dignity of the scientific method. The so-called scientific method as carried on under the prevailing testing program is a travesty upon the meaning of science. Any method which overlooks the essential conditions of growth in the free play of ideas in a flexibly developing curriculum in the education of the child is not even pseudo-scientific.[1]

This indictment of some of our testing programs is probably justifiable. Nevertheless, though such a program is educationally unwise, it is not necessarily unscientific. The scientific aspects of such studies must be judged by some criteria other than their educational wisdom. A research program could be thoroughly scientific and yet be detrimental to the entire human race.

(3) Scientific conclusions are strictly limited. One of the first lessons that the student of education should learn is that conclusions are limited to the experimental data. In a certain Master's thesis in education the academic achievement of a group of music and physical education majors was compared with that of a group of students majoring in other departments of the college in question, the two groups having been equated upon the basis of IQ. This is a comparison well worth making, but the findings do not tell us how the students majoring in music and physical education com-

[1] Herbert G. Lull, *Principles of Elementary Education*, p. 59. Norton, 1935.

pare with the remainder of the student body in that college. All that the study shows is the comparison of these two groups when they have been equated upon the basis of IQ. Moreover, such a comparison made in one school does not warrant a generalization regarding the academic achievement of these two groups in all schools. Only in case the same conditions were found in a number of schools would one be justified in drawing a general conclusion.

When two rival methods of instruction are tried out by a given teacher with the view of determining their relative merit, all that may be said legitimately is that the method found to be superior is superior when used by that teacher. When the two methods have been tried out by many teachers, we are warranted in predicting that the method thus found to be superior by the majority of those using it will also be found to be superior by the majority of other teachers.

The Methods of Science. Education cannot, appropriately, be called a science, nor is it wise that it should become a science, because it is especially concerned with values. To the extent that education is interested in values — goals, aims, objectives, and the like — it must rely upon philosophy. Nevertheless, it may employ the methods of science in testing the validity of its hypotheses.

One of the principal methods of science is experimentation. Not every experiment which is made in the name of science possesses scientific merit. Perhaps only a very small percentage of experiments in any field make any great contribution to knowledge. The student of the scientific method must learn to distinguish between those studies which possess value and those which do not. The ability to make such a distinction should be one of the outcomes of instruction.

Moreover, the student should develop some facility in critically evaluating experimental results. He should learn to exercise caution in drawing conclusions from such results. In a certain study a comparison was made between the habits of character of boys belonging to Scout organizations and a group of non-Scouts of comparable ages. This information is valuable, but the conclusions to be drawn from it are extremely limited. Here, positive results

do not in any sense justify the conclusion that Scout training improves character. A different kind of study would be required for that. Boys of superior character may have been selected for membership in the organization. This, and many other possible factors, would have to be ruled out before any conclusion could safely be drawn regarding the influence of the organization upon the character of its members.

The problem of individual differences is so great in human behavior that the psychologist or the educator must guard against the probability that experimental results are due to chance. One method of doing so is to select a large number of cases. If two small groups are being compared, it is advisable to repeat the experiment several times. Some of the statistical rules governing such procedures are discussed in the Appendix.

The Necessity for Controls. Whenever possible, science employs accurate measures and exercises adequate controls. For example, in studying the phenomenon of falling bodies, the physicist uses very accurate methods of measuring speed and makes use of a vacuum for the purpose of controlling friction — a factor which would disturb his results. The psychologist or the educator employs quantitative measures of performance, and controls, as best he can, disturbing elements. Needless to say, he is not so proficient as the physicist in either attempt. Thus, psychology and education are not nearly so exact in their experimental work as are physics and the other natural sciences. In psychology and education the experimenter uses intelligence test scores, educational test scores, ratings or judgments of competent observers, time and trials required to master a given unit of work, and similar measures of performance, as his quantitative data.

For example, suppose an investigator wishes to compare the "whole method" of memorizing poetry (reading the entire selection each trial) with the "part method" (memorizing a stanza at a time). How does he proceed? He may select two poems, one to be memorized by the whole method and the other by the part method. In order to make sure that his results are not due to chance factors, he uses a comparatively large number of subjects (learners),

perhaps a minimum of fifty. The *time* required to learn the two poems is taken as the measure of the comparative efficiency of the two methods. There are several factors which must be controlled in such an experiment in order to insure valid results. The experimenter must make sure in advance that his two poems are of equal difficulty. This he can do only by trying them out in advance. He must also control the effect of practice, because the subjects should make a better score on the second memorizing as a result of practice upon the first. The most convenient way of controlling this factor is the counterbalanced order, having one half of the subjects memorize by the whole method first and the other half memorize by the part method first. He must also make sure that his subjects have not previously used one of these methods to the exclusion of the other. Thus, the experimental method employed in psychology and education differs from that used in other sciences only in the degree of its accuracy.

In many experiments it is highly desirable to make use of what is known as a control group. In a certain experiment in which the influence of courses in the social sciences upon the attitudes and beliefs of students regarding social, political, economic, and religious problems was investigated, students who were not taking courses in the social sciences were used as a control group. Changes in students' attitudes respecting these problems might result from their increasing mental maturity, from changes in economic and political developments in the social order, or from other causes. It was assumed that changes in attitudes due to these causes would occur in students not studying the social sciences as well as in those who were pursuing these studies. By comparing the changes found in the attitudes and beliefs of the social science students with those found in all the other students, it was possible to determine approximately what the net effect of the social sciences was in this respect.

Thus, in critically evaluating experimental research in the field of education, the student should satisfy himself regarding three questions: (1) Is the number of cases adequate to insure reliable results? (2) Are valid measures of the phenomena used? (3) Are all other probable influences controlled?

Quantitative measurement is not the only scientific procedure. In biology, geology, and anthropology, for example, the scientist depends very largely upon *accurate description of phenomena.* This method is also used extensively in the field of behavior. It is one of the best methods of determining educational results. Any changes which occur, as a result of education, in the interests, attitudes, or social behavior of pupils may be detected by carefully observing and recording the behavior of the pupils.

In the social sciences — to which psychology and education belong — *statistical procedures* are employed extensively as an aid in controlling disturbing factors in experimental work and also in interpreting the results. In fact, the experimental literature in these fields can scarcely be read intelligently without some elementary knowledge of statistical concepts and procedures. A brief account of them is given in the Appendix. It is not an exaggeration to say that statistics, more than any other single factor, has lent dignity to scientific research in the social sciences.

The Problem of Evaluation of Educational Outcomes

It is impossible to lay down any set of rules by which the educational outcome of all specific courses of instruction may be judged. This situation prevails because the objectives of all courses are not the same. Attainment in every course of instruction should be measured in terms of all the objectives of the course. If improvement in citizenship, inculcation of useful social attitudes, and the fostering of a spirit of scientific inquiry are among the objectives of a course, it is woefully inadequate to judge proficiency in the course solely in terms of factual knowledge gained. Knowledge of scientific facts, skill in using apparatus, ability to plan an experiment and draw valid conclusions from experimental data, are among the educational aims of the majority of courses in science. Students' achievements must be determined in the light of these as well as the other objectives of such courses.

The function of educational measurement is to determine how

successfully educational objectives are met. It is not the task of measurement to state what the objectives shall be or to ascertain whether or not they are worthy educational objectives. In general, the function of scientific education is to devise the best means of attaining objectives and of determining how successfully they are attained. The philosophy of education, in conjunction with sociology, must tell us what the objectives of a course of study and the educational program in general should be.

The philosophy of education, which is in no sense a method of measurement, is at its best when employed to determine the grounds upon which educational procedures shall be evaluated. While it is not possible to predict what the outcome of a given educational or instructional policy will be, we may safely assume that results will be negative in those directions in which no educational effort is made. For example, if nothing is done to promote good citizenship other than teaching facts of history in an encyclopedic fashion, it is safe to assume that improved citizenship will not be one of the major outcomes. An educational program which fails to take an experimental attitude toward existing political, economic, and social institutions, and toward existing moral codes, can hope to make only a negligible contribution to the promotion of good citizenship, if, indeed, its influence is not actually detrimental. On the other hand, if all our social institutions are treated as social experiments, if an intelligent attempt is made within a school system to encourage critical reflection regarding these institutions, and if an effort is made to break through barriers of prejudice, it can meet one important test for the teaching of good citizenship.

Furthermore, enough is known about the process of education to warrant the conclusion that a school is not realizing all its possibilities for the teaching of citizenship in a democracy if the principles of democracy are taught as abstract concepts rather than in terms of the duties and privileges of citizenship. Similarly, a school cannot meet all the essential conditions for the successful teaching of citizenship if it fails to stress such problems of economic and social concern as those occasioned by the machine age, and

by responsibilities for the aged and the indigent, or if it neglects such problems of local government as franchises, health and sanitation, water supply, police and fire protection, beautification, and financing.

Schools may be evaluated in this negative way in other subject-matter fields — language, health, geography, literature, and the like. We may be reasonably sure that the educational outcome will be short of the need in those schools where the objectives do not correspond with known requirements.[1] But even if the aims and methods correspond to the best educational practice, desirable outcome cannot be taken for granted. More positive methods — those utilizing experimentation, careful observation, and measurement — are required.

Evaluation through Attitudes

An effective program of education should influence pupils' attitudes toward a host of social, economic, political, religious, scientific, and aesthetic problems. One of the larger aims of education is the inculcation of socially and personally desirable attitudes toward these and related problems. Wholesome attitudes not only make for socially desirable behavior, but they also go a long way toward insuring the happiness of the individuals who possess them.

It is not possible to state exactly what attitudes should be fostered by an educational program. These must be worked out in terms of the general and specific objectives of each course of study. Naturally, different courses should feature the development of different attitudes. It is the aim of the present discussion to describe the general method of attitude measurement. Attainment in attitude objectives of specific courses may be measured in the near future almost as reliably as attainment in subject-matter objectives.

One illustration of the measurement of social attitudes is Rosander and Thurstone's test, *Attitude toward the Constitution of the United States.*[2] There are two forms of this test, consisting of twenty-one

[1] See Lull, *op. cit.*, and John L. Childs, *Education and the Philosophy of Experimentalism.* Century, 1931.

[2] A. C. Rosander and Louis L. Thurstone, *Attitude toward the Constitution of the United States,* Scale No. 12, Form B. University of Chicago Press, 1931.

items each. The ten items reproduced below are taken from Form B:

( ) 4. Several parts of the Constitution might be amended.
( ) 8. I am undecided about the Constitution
( ) 9. Our Constitution is in every way the worst government document ever written.
( ) 11. Our Constitution is sacred.
( ) 12. The principles of government contained in our Constitution are as perfect as man can ever make them.
( ) 13. Our Constitution is the greatest document ever written.
( ) 14 We can never make any progress so long as we keep our present Constitution
( ) 15 Any criticism of the Constitution should be constructive.
( ) 16 Our Constitution should not be discarded because of a few evils connected with it
( ) 21. We ought to have a new Constitution

For purposes of computing the total score, each test item is assigned a value somewhere between 0 and 11; the higher the scale value, the greater is the indicated loyalty to the Constitution. For example, the scale value of item 9 is 0.1, that of item 21 is 1 3, that of item 8 is 5.3, that of item 12 is 9.8, and that of item 11 is 10.1 The total score is the median scale value of all of the items answered in the affirmative. Total scores are interpreted by means of five descriptive categories, as follows:

0–1 9 Strongly prejudiced against the Constitution.
2.0–3.9 Prejudiced against the Constitution.
4.0–6 9 Neutral position
7.0–8 9 Loyal to the Constitution.
9.0–10.9 Strongly patriotic and loyal to the Constitution.

Some of the other tests developed by Thurstone and his pupils for the measurement of attitudes are: *Attitude toward the Church*, *Attitude toward War*, *Attitude toward the Negro*, *Attitude toward the Chinese*, *Attitude toward Treatment of Criminals*, *Attitude toward Birth Control*, and *Attitude toward Capital Punishment*.

Harper has designed a test to measure attitudes of liberalism and

conservatism toward the following issues: wealth and property rights, internationalism, politics, government ownership, capital and labor, social problems, and religion. This test contains seventy-one items. The following samples illustrate the type of items used:

( ) The development of the highest welfare of the country will require government ownership of the land.
( ) Our educational forces should be directed toward a more thoroughly socialistic order of society.
( ) The power of large fortunes in this country endangers democracy.
( ) Reproduction should be made impossible by segregation or by surgical operation, for all those below certain low standards of physical and mental fitness. [1]

Watson's test, *The Measurement of Fairmindedness*, also makes an excellent contribution to this field.[2] There are other tests of a general nature which are appropriate to attitude and interest measurement. For strictly educational purposes there is need of more specific attitude tests designed to measure attainment in attitude objectives of specific courses of study.

There are numerous educational uses for attitude tests such as these. Attitudes are important educationally because of their influence upon behavior. For example, a person whose attitude toward prohibition is unfriendly is not likely to vote for it or to contribute money for its promotion. By administering attitude tests to pupils at the beginning of a course of study and again at the end, it is possible to determine the effect of the course upon the attitude scores. The procedure, however, is not so simple as it would seem at first thought because, as is stated above, the effect of other simultaneous influences has to be controlled. However, the teacher who is trained in educational research would experience no difficulty at this point.

Peterson and Thurstone have employed the latter's scale for

[1] Manly Harper, *Social Beliefs and Attitudes of American Educators*. Teachers College, Columbia University, Contributions to Education, No. 294, 1927.

[2] Goodwin B. Watson, *The Measurement of Fairmindedness*. Teachers College, Columbia University, Contributions to Education, No. 176, 1925.

measuring nationality preferences in studying the effect of motion picture propaganda upon the attitudes of high school pupils.[1] The scale was administered in order to determine the attitude of the pupils toward Germans. At a later date they were taken to a theater to see a pro-German film. Subsequent to the seeing of the film, the attitude test was administered again and the attitudes of the pupils toward Germans were redetermined. In a similar way the effect of newspaper propaganda, the effect of Sunday school, Scout organizations, or the effect of studying the social sciences or any other courses of study upon attitudes may be determined. For example, the author, in collaboration with Boldt, studied the comparative effect of studying the social sciences, the physical sciences, and the humanities — art, literature, language, music, etc. — upon the attitudes of college students, attitudes being measured by the Harper test, *Social Beliefs and Attitudes*.[2] The results of this study may be seen, in part, by examination of the data presented in Table IX.

TABLE IX

RELATIONSHIP BETWEEN SEMESTER-HOURS TAKEN IN SOCIAL SCIENCES AND TEST SCORES

CLASS	NUMBER OF HOURS	MEAN SCORE
Junior	5–19	47.29
Junior	20–34	51.54
Junior	35-up	55.18
Senior	10–29	51.80
Senior	30–49	54.67
Senior	50–up	57.15

The higher the score the greater is the degree of liberalism indicated. Thus, it may be seen that the greater the number of semester-hours credit earned in the social sciences by the members of these

[1] Ruth Peterson and Louis L. Thurstone, "The Effect of Motion Picture Film on Children's Attitudes toward Germans," *Journal of Educational Psychology*, Vol. XXIII (April, 1932), pp. 241 ff.

[2] James B. Stroud and William J. Boldt, "Changes in the Attitudes of College Students," *Journal of Educational Psychology*, Vol. XXV (November, 1934), pp. 611 ff.

two classes, the more liberal are their attitudes toward the social, political, economic, and religious issues represented in the test.

Evaluation through Skills

An important function of education is the teaching of skills — not merely reading, spelling, and the manual skills, but also skills in collecting and interpreting factual data, making and interpreting figures, graphs, and maps, conducting experiments, using apparatus, preparing reports, collecting source material, and using the library. It is not the purpose of the present treatment to suggest what skills should be included in the objectives of courses of study, but it is suggested that in appraising educational outcome, attainment in all those skills which are incorporated into the objectives should be evaluated.

Tyler has insisted that, as a preliminary step in the construction of educational tests for use in any course of study, all the aims or objectives of the course should be carefully formulated, and that any satisfactory test must measure achievement in all these objectives.

These objectives must be defined in terms of students' behavior; that is to say, the objective must be expressed in terms of an analysis of the psychological processes developed by this subject. For example, in zoölogy, one type of mental process expected of students is the recall of important facts, principles, and technical terms. Another is an ability to formulate reasonable generalizations from the specific data of an experiment. A third type is an ability to plan an experiment which might be used to test a given hypothesis in zoölogy; a fourth, the ability to apply general principles to new situations; and a fifth, skill in the use of the microscope. The nature of these objectives when analyzed determines the variety of achievement tests to be constructed. It is obvious that the measurement of information which a student recalls may be done with a paper-and-pencil examination, while a test of skill in the use of the microscope would require a different set-up.[1]

[1] Ralph W. Tyler, "Measuring the Results of College Instruction," *Educational Research Bulletin*, Vol. XI (May 11, 1932), pp. 253 ff.

Ability to Infer. In line with the procedure just outlined, Tyler has constructed a test for the purpose of measuring the ability to infer.[1] The following example illustrates the technique employed.

Facts. Starch when treated with iodine solution gives a blue color. When saliva is mixed with starch and left for a time the mixture no longer turns iodine solution blue.

Inference. Saliva produces a change in starch.

Test Questions. (*a*) Saliva turns starch to sugar.
(*b*) Saliva turns iodine blue.
(*c*) Saliva produces a change in starch.
(*d*) The color of saliva destroys the blue color.
(*e*) Saliva has no effect upon grape sugar.

Ability to Use Apparatus. Skill in using apparatus is an objective of almost every general course in science Undoubtedly, many teachers, upon the basis of subjective estimates, have taken proficiency in the use of apparatus into account in appraising the achievement of their pupils. As a means of improving such methods of evaluation in courses in biology, Tyler has constructed a test designed to measure skill in the use of a microscope.[2] This test is essentially a check list consisting of more than fifty operations which should or should not be made. An observer simply checks the operations and omissions while the student is actively engaged in making microscopic observations. Such checkings furnish the basis for computing the pupil's score.

Ability to Apply Chemical Principles. A similar procedure is illustrated by Frutchey in his test, *Measuring the Ability to Apply Chemical Principles.*[3] An examination question taken from the article cited below will illustrate the procedure:

Coal gas which has not been previously mixed with air is burned at a gas jet. At another similar gas jet the coal gas is mixed with air before

[1] *Idem*, "Measuring the Ability to Infer," *Educational Research Bulletin*, Vol. IX (Nov. 19, 1930), pp 475 ff

[2] *Idem*, "A Test of Skill in Using a Microscope," *ibid*, p. 493.

[3] Fred P Frutchey, "Measuring the Ability to Apply Chemical Principles," *Educational Research Bulletin*, Vol X (Dec 13, 1930), pp. 265 ff.

it is burned. Will there be any difference in the amount of light given off by the flames of the two gas jets? Why?

Check the following statements which give the answer to this question: The flame at the first jet will give off:

(*a*) More light than the flame at the second gas jet.
(*b*) The same amount of light as the flame at the second gas jet.
(*c*) Less light than the flame at the second jet.

Check the following statements which give the reason for the answer or answers you checked above.

(*d*) Incomplete combustion leaves some uncombined carbon in the flame.
(*e*) The presence of nitrogen retards combustion.
(*f*) Particles of uncombined carbon glow when heated.
(*g*) Combustion is more complete in the first form.
(*h*) The amount of air mixed with gas does not affect the amount of light produced by the burning gas.
(*i*) Air contains oxygen.
(*j*) Oxygen supports combustion.
(*k*) Air contains nitrogen.

Ability to Think Consistently. It is readily possible to devise thought questions of the simple "true-false type," as is shown by the following questions taken from an educational psychology test:

( ) The transfer-of-training experiments tend to support the faculty theory of intelligence.
( ) Every mental test is an intelligence test.
( ) Children who are one year apart mentally at age four will, on an average, be two years apart at eight.
( ) A test composed of 100 items is, other things being equal, more reliable than one composed of 50 items.
( ) Children having the same mental ages may have different intelligence quotients.[1]

Any intelligent reaction to these questions requires a certain amount of information and the ability to apply this information to the particular problem at hand.

[1] James B. Stroud, *Chapter Tests* (to accompany *Educational Psychology*). By permission of The Macmillan Company, publishers, 1936.

Attention is called to an unpublished test by James Skipper[1] designed to test consistency of attitude toward social problems. The test consists of two parts which cover similar problems stated in different terms. Consistency is indicated when the pupil expresses the same attitude toward the two statements of the general problem, as in the following examples:

Form I, item 5. Government owned and operated business is never as efficient as private business.
Form II, item 5. Experience has shown that municipal water works provide good water at a lower cost than water companies.

Ability to Understand. The report of the Commission on the Social Sciences, prepared by Kelley and Krey, includes some stimulating suggestions for improvement of testing in the social sciences.[2]

In this comprehensive program the commission undertook to devise appropriate tests and to measure, upon a nation-wide scale, certain significant results in the teaching of the social sciences — geography, American history, community civics, modern history, and social sciences. Attempts were made to measure *understanding*, *historical-mindedness* and *cultural patterns*, *skills*, and *interests* and *attitudes*.

Regarding *understanding*, Krey says:

Understanding, as the term is used by most teachers of social sciences, is an intangible value over and above knowledge of specific information or precise verbal definitions. . . . Specific information, referred to as "the facts of history," for example, is distinguished as consisting of those items which are sharply limited in time, place, event, and attendant circumstances. A student can commit a great number of such items to memory without attaining understanding. . . . A student can commit a precise definition to memory without being able to apply it to any given situation. . . .

It is generally assumed that the student learns in his classes in social

[1] Used by permission of the author.

[2] Truman L. Kelley and August C. Krey, *Tests and Measurements in the Social Sciences*, Part IV of the Report of the American Historical Association Commission on the Social Sciences. Scribner, 1934.

sciences much that will be of use to him as a responsible member of society. . . . The carry-over from school to life, therefore, must consist of something beyond the specific information It must be something about the information worked over in class that can be applied to other facts. Classification of certain facts, or relationship of facts of certain kinds, it seemed, might furnish the clue to understanding.[1]

Some of the tentative conclusions drawn from the investigation reported above are: (1) There is "an important difference between inert, or unique, and functional facts in social science." [2] (2) A test consisting principally of inert facts fails to measure instruction in a subject since it can be successfully passed by cramming. (3) A test consisting of functional facts "seems to require something beyond cramming and reflects sustained instruction or reflection, or both." [3]

The tests used for measuring understanding were the Pressey *Tests of Concepts* (in the social sciences), the Wesley *Tests in Political Terms* and *Tests in Social Terms*, and the Kelty-Moore *Test of Concepts in the Social Studies*. An example taken from each of these tests follows: [4]

PRESSEY — Who may be impeached?

(*a*) a business man, (*b*) a criminal; (*c*) a reporter; (*d*) a President

KELTY-MOORE — *Unanimous* means:

(*a*) generous or unselfish; (*b*) the majority vote; (*c*) having the agreement of all; (*d*) the people who vote the same way; (*e*) almost everybody.

WESLEY — *Emancipation* means:

(1) enslave; (2) waste away; (3) liberalize; (4) make strong, (5) liberate.

Ability to Read Maps. The evaluation of skill in reading maps is used as an example of the type of testing of specific skills which may be used to advantage in courses in geography. Other specific skills, the attainment of which is an aim in such courses, are the ability to

[1] *Ibid.*, p 5. [2] *Ibid*, pp. 27–28. [3] *Ibid.*, pp. 27–28. [4] *Ibid.*, pp. 38–40.

construct maps and charts, to collect and interpret statistical data, to appraise relative weather conditions and understand their results, to recognize and deal with problems of conservation of natural resources, to detect desirable residential possibilities with respect to food, shelter, and the interrelated problem of climate. Attainment in many of these and related skills may be evaluated appropriately through a liberal use of factual and thought-provoking questions. Tests of this kind are not adequate for all testing purposes in this field. The Calkins-Parker *Geography Tests*, designed to test the ability to read maps, supply one additional means of evaluating the outcome of teaching geography. These tests are said to measure ability to use semi-pictorial map symbols to identify sea and land, railroads, rivers, mountainous land, lowland, cities and coast, and the like; and to gather from such symbols ideas of direction, direction of flow of stream, and comparative distance; to use symbols and legend, color band, color spot, dot symbols, and orientation lines and iso-lines.[1]

Ability to Recognize, Study, and Evaluate Problems. One of the aims of instruction at the college level, and sometimes at the high school level, is the development of skill in recognizing, studying, and evaluating problems pertaining to the course in question. Often this aim is only implied, and the attainment of it is left to incidental circumstances. Definite effort directed toward the attainment of this objective and the development of techniques for evaluating the attainment would doubtless have the effect of stimulating greater effort of both teacher and pupil in this direction. Knowledge of teaching and learning supports the statement that incidental outcomes of education cannot be counted upon.

There is need of more positive methods of evaluating achievement in this objective. Certainly, the traditional educational test, emphasizing, as it does, factual knowledge, is inadequate. In the absence of objective tests to measure attainment of these and many other skills which go to make up the objectives of courses of study, a great deal can be accomplished through use of the essay type of examination. The author's own experience inclines him to

[1] *Ibid.*, p. 247.

believe that a student, in writing upon a subject, reveals several skills which are usually not brought out in the traditional objective test. These include clarity of expression, skill in organization, and ability in apprehending and critically evaluating the significant problems in a course. If, instead of reading the pupils' papers and, upon the basis of general judgment, assigning them some value in the form of a composite score, we would evaluate each one in terms of all the traits we wish it to show, making a separate evaluation for each trait, we could undoubtedly improve the result. For example, if in an introductory course in education the instructor has as his objectives, among others, skill in expression, knowledge of facts, and ability to recognize and evaluate educationally significant problems, he could, upon reading the examination papers, make a separate evaluation of the students' proficiency in each and, if desired, make a composite score from the separate evaluations. Some such procedure would, it seems, have a wholesome effect upon both teaching and studying.

Of course, other and perhaps better ways could be devised for evaluating proficiency in this important skill. One such method might be that of having the pupils write down a number of educationally significant problems and attempt to justify their choice. Oral discussion of problems could also be used as a basis of evaluating attainment. In any event, recognizing and evaluating problems should have a place in the objectives of a course and in the measurement of results.

Ability to Use a Library. Almost as important as knowing a fact is knowing where to find it. It is a major aim of almost every course of higher instruction to acquaint the student with sources of information and the technique of locating it. Whenever this skill is among the objectives of a course, cognizance should be taken of it in evaluating achievement in the course. It should be comparatively easy to set up some standards for making such evaluations in the various subject-matter fields. The student should be acquainted with the resources of his library in these fields. This could be determined simply by having the student write down the various sources of information, such as technical books, encyclo-

pedias, dictionaries, gazeteers, and journals. He should be familiar with the three kinds of cards — author, title, and subject — found in the card catalogue, and with the subject and author indices of the *Reader's Guide*. He should also understand the system of classifying books. Proficiency in these skills may be determined by a question and answer technique or by assigning topics upon which pertinent bibliographies are to be compiled. The following test items will illustrate the former practice:

(1) To find the call number of a book by William Stearns Davis, look in the catalogue under the word ——.
(2) To find the call number of a book about Radio, look in the catalogue under the word ——.
(3) To find the call number of the book *Microbe Hunters*, look in the catalogue under the word ——
(4) The *Reader's Guide* is (*a*) a list of good books to read; (*b*) a book on English literature, (*c*) an index to articles in periodicals; (*d*) a catalogue of books which should be in every library.[1]

The foregoing list of skills in terms of which educational efforts should be appraised is not meant to be exhaustive. It is hoped that it will serve to emphasize to the teacher in training the need of evaluating educational results in terms of the significant educational skills, and to illustrate some of the methods of making such evaluation.

Evaluation through Information

The accumulation of useful factual information is a desirable educational objective. It is mere knowledge that should be despaired of. Skills without knowledge are as useless as knowledge without skills. Both should be acquired simultaneously, and attainment in both should be evaluated. The highest attainment in the measurement of factual knowledge is the objective educational test. In fact, this type of test has been so proficient in measuring knowledge that its critics have complained that it measures little else. Many of the objective tests, even in subject-matter courses, have measured achievement in other educational objectives than

[1] Taken from an unpublished test, *Use of the Library*, by Elsie Pine *et al.*

factual knowledge, but it is a very conservative criticism to say that even the best of these have been much more successful in measuring attainment in this objective than in any of the others. Of course, many objective tests — for example, reading, writing, and arithmetic tests in the grades — have been constructed for the measurement of skills.

The growth of the objective test has been little short of phenomenal since its inception about twenty-five years ago. Literally, there are hundreds of objective educational tests today, embracing every subject-matter field.

Three principal kinds of test items have been used in the designing of information tests; namely, true-false, multiple-choice, and completion. True-false and multiple-choice items may be answered upon the basis of a type of memory known as recognition, while the completion items require a type of memory known as reproduction or recall. Although the latter type of memory requires more thorough mastery than does the former, completion tests have proved in actual practice to be slightly less reliable than the other kinds. A practical difficulty is encountered in completion test construction in formulating statements which will call forth the desired response and no other. An example of each kind of test item is given below.

True-false:

( ) Sydney is a city in Australia.

Multiple-choice:

( ) The largest railroad center in America is
(1) New York; (2) Philadelphia; (3) Chicago; (4) Cleveland.

Completion:

The nation which has a Fascist form of government is ——.

Information tests are discussed at length in the final portion of this chapter in connection with educational measurement. Numerous textbooks dealing with the subject are available. A selected list of these is given in the bibliography at the end of this chapter. Objective tests are so well known to the student at the

college level that it seems to be inappropriate to present additional examples of them here.

Evaluation through Behavior

The ultimate test of any large-scale educational program must be made in the proving ground of society. The educator naturally feels that all has not been well with education when he observes the social order so much out of joint. He cannot look with complacency upon recurrent periods of economic depression with its dislocations in employment, loss of security, and stifled ambitions of millions. He finds no confirmation of the social value of education in the speculative boom of recent history, nor in overcrowded jails and penitentiaries, nor in the threat of war which hovers over the world like a scourge.

On the other hand, the educator finds much in the social order of which to be proud. He could compile an imposing list of social changes which have improved the conditions of living of millions of people. Among the more important are general education, improved working conditions, shortened hours of labor, reduction in destructive child labor, inauguration of accident and unemployment insurance, and old-age and retirement pensions. Perhaps the greatest challenge to the social order today is the working out of a program whereby improved methods of production and labor-saving devices — instruments which should be assets to human living — may not fail of this end through the piling up of unemployment.

Since education is intimately tied up with the social order, it justifiably assumes a share of the responsibility for the existing order, good or bad. Nevertheless, so gross a standard of evaluation as social well-being is by no means satisfactory for a scientific program of education — especially because formal education is only one of the factors contributing to the social order. It is a little strange that no comprehensive methods of evaluating education in terms of behavior are to be found, notwithstanding the fact that public education since its inception has been defended on that ground. Perhaps it has seemed so obvious to educators that edu-

cation should improve the quality of social behavior that this outcome has been taken for granted. Should the public ask for an accounting, educators might be embarrassed in their efforts to show scientifically valid results. So long as the public believes about education as it does, some general remarks about earning power, social service, or enriched life will suffice. The evident lack of serious purpose upon the part of so vast a number of our high school and college pupils suggests that they are not entirely convinced of the value of education.

Society should question the value of education to its members. Educators, who have ever been concerned about the value of their efforts, should seek to develop more positive methods of evaluating behavior outcomes. Educational programs and methods of teaching are not all equally productive of good social consequences. The effect of various programs and methods upon behavior — the most important of all educational results — must, in the absence of such methods of evaluation, remain a matter of speculation and inference.

The difficulties encountered in attempting to evaluate educational results in terms of behavior are tremendous. In the first place, results do not show up fully until the student enters upon the duties of adult citizenship. In the second place, there are so many educative forces besides the school — the home, the church, the press, and the radio — that it is difficult to determine just what part the school has played. Our difficulties would be somewhat lessened if we knew definitely what traits of youth lead to desirable and undesirable behavior in adult life. If this information were at hand, the educator could undertake intelligently the inculcation of desirable traits and the elimination of undesirable ones. Much information of this nature could be supplied by making careful and complete observations of thousands of persons at frequent intervals from childhood to full maturity and by analyzing the results. Naturally, this would be a momentous undertaking.

No great difficulty should be encountered in devising adequate methods of appraising behavior. The educational problem of ascertaining what kinds of behavior are valuable for future citizenship

is great indeed. Three general methods of studying behavior which are now in use could be refined and made to serve a useful educational purpose. These are the rating method, the method of direct observation, and the case history method. Examples of the rating method are the *Behavior Rating Schedules* prepared by Haggerty, Olson, and Wickman.[1] Schedule A (Behavior Problem Record) is a four-point scale for the rating of pupils upon such traits as disinterest in school work, cheating, defiance to discipline, unpopularity with children, lying, and truancy. Schedule B (Behavior Rating Scale) is a five-point scale for the rating of pupils upon such traits as personal appearance, degree of interest, energy output, competition (upon a physical basis), cleanliness, and exactness of thought.

Several behavior clinics and a few of the most progressive schools have employed the method of direct observation in studying behavior. Such observations should be made by trained workers. In some instances the observers are supplied with printed lists of activities to be observed. The frequency of occurrence of each type of response displayed by each child under observation is checked.[2]

The case history employs the principle of collecting information about the conduct of an individual from persons competent to report it. Such histories may contain a great deal of information pertaining to family life, neighborhood activities, emotional adjustment, moral conduct, interests, school and playground behavior, and the like. If the history embraces a relatively long period in the person's life, it may be used to show trends in behavior. Inaccuracies in the information so gathered constitute one of the chief limitations to this method.

It is readily possible to apply one or more of these methods in studying the influence of schooling upon any aspect of pupil behavior. Their application to the broad and varied aspects of student

[1] Melvin E. Haggerty, Willard C. Olson, and E. K. Wickman, *Behavior Rating Schedules*. World Book Company, 1930.

[2] Arthur T. Jersild describes one such technique (developed by Ruth Arrington) in "The Consistency of Certain Behavior Patterns in Young Children," *American Journal of Psychology*, Vol. XLV (January, 1933), pp. 125–129.

behavior should influence the schools in giving more attention to this worthy educational objective.

Educational Measurement

Measurement in some form or other is as old as formal education itself. Examination as a basis for giving grades and making promotions has been in use for many generations. Written examinations have been used in China for more than thirteen centuries.[1] Educational measurement in the modern sense — objective measurement — dates approximately from 1894, the year in which J. M. Rice first administered his spelling tests.[2] Rice expressed the idea that measurement must be the test of the soundness of educational practice and philosophy when he said, "In truth, however, I came to recognize this (the claims of school men following different courses of study) was all talk — that no one really knew the facts, because there were no standards to serve as guides."[3] Rice devised a spelling test which he administered to the pupils of various schools in and about Boston. His results indicated that pupils who had studied spelling ten to fifteen minutes per day for eight years could spell quite as well as those who had studied it forty to fifty minutes per day for the same number of years. Here was a definite test of opposing educational practices. Although Rice's pronouncements met with a storm of criticism, his ideas gained ground.

Perhaps the most important date in the history of measurements is 1910 — the year which marked the publication of Thorndike's handwriting scale.[4] By 1918, only eight years later, there were, according to Monroe, eighty-four standardized educational tests for the elementary school subjects and twenty-five for the high

[1] Truman L. Kelley, *Interpretation of Educational Measurement*, p. 1. World Book Company, 1927.

[2] Leonard P. Ayres, "History and Present Status of Educational Measurement," in National Society for the Study of Education, Seventeenth Yearbook (1918), Part II: *Measurements of Educational Products*, pp. 9 ff

[3] *Ibid.*

[4] Edward L. Thorndike, "Handwriting," *Teachers College Record*, Vol. XI (March, 1910), pp. 1–93.

school subjects.[1] The number of standardized tests now available for use in the elementary grades, high school, and college, runs into hundreds — perhaps a thousand would not be an extravagant estimate. This estimate does not include the unstandardized objective tests which teachers the country over have constructed and used in their classrooms to measure educational results.

Characteristics of Objective Tests. The objectivity of tests lies in their scoring. Since much greater care is exercised in making keys than in grading essay papers, and since the language of the test items is more exact than that which the pupil uses in written examinations, less error is made in scoring objective tests. Subjective judgment is, of course, a factor in the making of scoring keys for objective tests.

Another advantage of objective tests is the fact that they may be standardized — a matter of tremendous importance in interpreting test results. Scores made upon standardized tests may be interpreted through the use of norms. A score of 46, made by a fourth-grade pupil upon a reading test, is unintelligible until interpreted. If, upon inspection of a table of norms, we find that 46 is the average score of fifth-grade pupils, we have a ready means of evaluating this pupil's reading performance: it is as good as the average performance of fifth-grade pupils.

Standardized tests have known reliability and validity. These are technical terms which are used in evaluating standardized tests. Reliability refers to the accuracy or consistency of a test. It may be determined by mathematical treatment of two sets of scores of the same test, given to the same group of pupils at different times. A test is reliable to the extent that pupils tend to make the same scores upon the two occasions. Should all the pupils make the same scores on the two examinations, the test would be 100 per cent reliable. This never happens in actual practice, except by chance. Many of the better tests have reliability coefficients of more than 90 per cent.

[1] Walter S. Monroe, "Existing Tests and Standards," Ch. VII of National Society for the Study of Education, Seventeenth Yearbook (1918), Part II: *Measurements of Educational Products.*

Tests are valid in the proportion to which they measure what they are designed to measure. If a test is designed to measure factual information in a subject, it is valid if it does so. If a test designed to measure achievement in history, for example, measures factual information only, while purporting also to measure attainment in the other objectives of the course, it is not valid. It is probable that the essay test measures more successfully than does the objective test such objectives as the ability to express thought, to think consistently, to see relationships, to organize and interpret data, and to apply them to problem situations.

Reliability and validity have restricted meanings. A test may be high in reliability and low in validity; that is, it may measure something accurately without measuring what its designers claim it does. A geography test, for example, might, if it lacked validity, measure reading ability primarily, and knowledge of geography only incidentally. Moreover, a teacher should examine the grounds upon which a test has been validated. A test which is valid with respect to measurement of factual knowledge may not be a satisfactory test for a course which has other objectives than this one.

Construction of Standardized Tests. Preparatory to the construction of standardized tests, the test designer collects a large number of items — statements of fact, problems, and other test situations, many more than he intends to use. He then administers these items to several hundred pupils in order to determine which items distinguish most successfully between good and poor students — those known by other standards to be good and poor. If a test is designed for use in several grades, it is legitimate to assume that the pupils of the higher grades should make higher scores than those of the lower grades. Thus, each test item is examined according to this standard. Those items are chosen which show the greatest difference in the percentage of correct answers between the pupils of the various grades. If the percentage of pupils answering correctly item 27 on an English test designed for grades four to eight is 60, 62, 58, 60, and 65, respectively, for the five grades, we may assume that this item does not distinguish between

the respective levels of attainment. Such an item should be eliminated. Should we find 52, 61, 68, 75, and 85 per cent of correct responses for the five grades in the case of item 31, in the order named, we would recommend that this item be chosen.

There are a number of simple rules which the test designer follows. For example, he knows that, within limits, the reliability of his test depends in part upon its length. Objective tests should ordinarily contain at least seventy-five to a hundred items. The stating of items so that they have a double meaning or so that the pupil does not comprehend their meaning lowers the reliability of the test because this has the effect of shortening it. Duplication of items has the same effect.

Interpretation of Test Scores. There are certain standard concepts by means of which educational achievement is evaluated. Among these may be mentioned mental age (MA), chronological age (CA), intelligence quotient (IQ), educational age (EA), accomplishment quotient (AQ), and percentile rank (PR). The MA corresponding to any given intelligence test score is the average age (CA) of the pupils making that score. The mental age concept, introduced by Binet, has proved to be the most important contribution made to intelligence testing. Through the use of this concept, it is possible to determine whether a given child has normal, sub-normal, or super-normal intelligence by comparing his test performance with the average test performance of children of his own age. If such comparison shows a given child to be above or below average, it is also possible to determine how much above or below his performance is, through the simple expedient of ascertaining the average age of the children who achieve the same score as he does. For example, if the intelligence test score of a child of eight is equivalent to the average score of nine-year-old children, he is said to be as intelligent as the average child of nine; that is, to have a mental age of nine. The IQ is used universally to show the ratio of MA to CA, as:

$$\frac{MA^8}{CA^7} \times 100 = 114, \quad \frac{MA^7}{CA^7} \times 100 = 100, \quad \text{or} \quad \frac{MA^6}{CA^7} \times 100 = 86.$$

An IQ of 100 is "normal"; that is, MA and CA are identical. A child whose IQ is 100 matures mentally one year for each calendar year up to about the age of twenty. A seven-year-old child with an MA of six matures mentally $\frac{6}{7}$ (.86) of a year mentally for each calendar year. The IQ defines the rate of mental growth.

Educational age is obtained in the same way as is MA, except that standardized educational tests, rather than intelligence tests, are used. A pupil having an educational age of 9.6 is equivalent, in educational achievement, to the average pupil who is nine years and six months of age. The educational quotient (EQ) is used to express the ratio of EA to CA. It is obtained by dividing EA by CA and multiplying the quotient by 100, as follows:

$$\frac{EA^6}{CA^7} \times 100 = .86$$

The EQ shows the ratio of educational achievement to chronological age. Through its use a pupil's achievement in relation to normal achievement for his age may be judged. Knowledge of achievement with respect to mental ability is also important educationally. This information is expressed in educational practice by the accomplishment quotient (AQ). The AQ may be derived by dividing EA by MA and multiplying the quotient by 100. An AQ of 100 represents normal, perhaps ideal, adjustment of pupil to school.

Percentile rank is one of the most satisfactory and widely used means of interpreting scores. Its advantage over ordinary rank is that it is independent of the number of cases used in the ranking. A rank of 50 (from the bottom) in a group of 60 is high, in a group of 100 is average, and in a group of 1,000 is low. A percentile rank of 50 always has the same value. A pupil achieving it equals or exceeds 50 per cent of the group with which he is compared, regardless of the size of the group. The PR is used in education as a means of interpreting scores of every kind. A method of computing percentile rank and the method of reading percentile graphs are described in the Appendix.

Educational Value of Measurement. In education, the student should not confuse measurement with objective measurement.

Moreover, in evaluating measurement as an educational tool, one should consider some of the possibilities which have not yet been fully realized. It is well to bear in mind that those advantages which accrue from tests and measurements of any kind are more adequately subserved by good tests than by poor ones.

The various uses of educational tests require little comment:

(1) To determine grades. This proposal is not to be construed as an argument in favor of giving grades; but if grades are given, it is desirable that the grades awarded correspond as closely as possible with pupil accomplishment.

(2) To determine whether or not pupil promotions shall be made. With a system of nearly universal education, such as ours, some kind of promotional system has usually been insisted upon.

(3) To determine whether or not pupils shall be graduated.

(4) To determine whether or not pupils shall be recommended to college, or to graduate and professional schools. This is a practice which has come into use with the standardization of our school systems.

(5) To test the merit of educational theories and practices. As stated above, the comparative validity of rival educational theories cannot be settled by a philosophical attack, although it is true that philosophy may, and should, determine the grounds upon which the theories are to be settled.

(6) To determine the effectiveness of instruction. One of the most important uses which the classroom teacher can make of measurement is to determine the extent to which educational objectives have been met. Standardized tests having test norms are valuable for purposes of comparison.

(7) To determine what shall be taught. Quite aside from any question of giving grades or making promotions, the teacher needs to know what to teach. Some pupils may require special help while others require an enriched program. A pupil who has been found in advance to have the required degree of mastery of certain units in language, for example, may be permitted to proceed to the next unit or to enlarge the scope of his activities beyond the range permissible to the average pupil.

(8) To diagnose special difficulties. Diagnostic testing has not reached the state of development which it gave promise of doing at its inception. Nevertheless, in some fields, particularly in reading and arithmetic, diagnostic tests have proved valuable in the detection of certain specific difficulties or undesirable habits.

Criticism of Objective Tests. Within the last few years a veritable storm of protest against the widespread use of educational tests has emanated from certain quarters. Some of the adverse criticism directed against objective tests really applies in some degree to all tests, while other objections apply wholly to the so-called objective tests. A somewhat critical evaluation of these objections follows.

(1) Criticism on the ground that pupil grading is objectionable. The claim has been made that the objective test has tended to attach undue significance to grades because it has engendered confidence in their accuracy. This is difficult to answer. The advocate of the essay examination ordinarily has considerable confidence in the percentage points which he ascribes to examination papers.

There are doubtless many evils incident to most grading systems; and much may be said in favor of the discontinuance of giving grades. Many educators, notably Morrison (1926),[1] have pointed out that grading or ranking systems have led to the attaching of undue importance to grades, to the confusing of "schooling" with "education." There seems to be little doubt that "working for grades" is frequently not in the best interest of education. However, if "mastery of units" or some similar plan is substituted for "passing grade," the need of measurement is not eliminated. It is as desirable to know when the requisite degree of mastery has been achieved as it is to know when a passing grade has been made.

The claim has also been made that the practice of giving grades, of displaying rankings in the form of charts, and similar practices tend to foster feelings of inferiority and superiority. This criticism of grading systems is probably justifiable to some extent. However,

[1] Henry C. Morrison, *The Practice of Teaching in the Secondary School*, Ch. V. University of Chicago Press, 1926.

the need of educational measurement would not be greatly lessened if pupil grading were abandoned in our schools.

(2) Criticism on the ground that measurement fosters mass education. There may be some advantages at times in grouping pupils according to abilities, just as there may be some advantages in a rigid system of assigning pupil grades; but, as is true with many things, these advantages are accompanied by certain disadvantages. The educator frequently must decide whether or not the advantages accruing from a certain educational practice outweigh the disadvantages.

It is admitted that it is impossible by present technique to form groups which will be literally homogeneous. The best that can be done is to group pupils in such a way that their abilities are equal according to certain criteria. The reader should bear in mind that equality as defined in terms of some prescribed criteria, such as IQ or MA, does not imply complete equality. Herein lies the chief objection. Pupils are sectioned into ability groups in terms of some predetermined standard and are subsequently treated as literally equivalent groups; or, conversely, individual differences are ignored.

This abuse arises from an inadequate understanding of the limitations of measurement. The teacher should appreciate the fact that pupils having the same IQ do not have the same learning ability and, for that matter, do not have the same intelligence. What is the justification for using IQ in any given age group as a criterion for ability grouping, granting that the advantages of such grouping outweigh the disadvantages? Simply this: IQ bears a significant relationship to academic learning ability and a highly significant relationship to intelligence. It is a tragic mistake, however, to assume that children having identical IQ's have identical learning ability or even identical intelligence.

However, the reader should appreciate the utter fallacy in such a statement as the following, made by one of our educators: "Physicians might as well prescribe the same treatment to all patients of like stature" as for educators to "treat children educationally the same way because their intelligence quotients are

equal." So far as the present author knows, there is no correlation between stature, on the one hand, and quality or severity of pathological condition, on the other. But there is a significant correlation between IQ and learning ability.

It is an established fact that groups similar, but by no means identical, in ability can be formed upon the basis of intelligence and educational tests. If there are advantages of sectioning pupils into *equivalent* groups, there are also advantages in sectioning them into *similar* groups.

An objection to educational measurements has grown out of an abuse: namely, the tendency to consider pupils educationally and psychologically equal when they have been grouped upon the basis of educational and intelligence tests. The author does not pretend to know whether it is more feasible to discontinue the practice of sectioning pupils according to these criteria than to educate teachers in the proper meaning of such ability groupings.

(3) Criticism on the ground that measurement fosters a static curriculum. This criticism applies solely to objective tests — particularly to standardized tests. The evil suggested here is not one which is inherent in objective tests, but it represents a type of abuse which easily arises. The teacher, the principal, and the superintendent, overanxious, perhaps, that their pupils make a good showing, are discouraged from enriching the curriculum upon the ground that time devoted to such an end would necessarily leave less time for drill upon "fundamentals" — which are more likely to be covered in the standardized tests. Moreover, since objective tests have measured knowledge of "content" more successfully than they have skill in functional application of such knowledge, teachers and administrators are tempted to stress content at the expense of application.[1]

This criticism, valid as it is, does not represent an insurmountable objection. If there were closer coöperation between test designers and curriculum experts, standardized tests could be utilized to promote curriculum interests. Also, much could be done to encourage the placing of emphasis upon functional appli-

[1] Lull, *op. cit.*, pp. 57 ff., has given a good exposition of this point of view.

cation of knowledge if more attention were given to this objective in test construction.

(4) Criticism on the ground that objective tests do not adequately meet the demands. This, in the author's opinion, is the most serious objection made to the objective test movement. Some tests are more objectionable on this ground than others are. It is not unfair to say, however, that, typically, objective tests have been deficient in the measurement of accomplishment in all educational objectives except the mastery of content. Some tests have given the impression that objective tests measure knowledge of non-essential details. This is especially likely to be true of unstandardized objective tests constructed by classroom teachers who have had little or no training in the principles of test construction. There are, however, no insurmountable barriers to measuring achievement in all educational objectives, as is shown in an earlier portion of this chapter.

(5) Criticism on the ground that objective tests foster undesirable study habits. To many observers it appears that objective tests, emphasizing, as they do, more or less unrelated items of information, put a premium upon the mastery of unorganized content, or at least offer no inducement to the learning of facts in an organized way. These critics fear that, as a result of this influence, students acquire undesirable study habits. If this is the situation, it constitutes a serious objection to objective tests.

It seems strange that after a quarter of a century of objective testing, no conclusive evidence pertaining to this problem is at hand. This is not a question which can be settled by speculative effort — if, indeed, any major educational problem can. It is worth noting, however, that, the nature of the learning process being what it is, items cannot be learned in an unrelated way. Learning is essentially a process of establishing relationships. Of course, items may be learned in improper relationships as well as in proper relationships. If subject matter is presented in a meaningful way, the student, it seems, will have a tendency to learn it in that way as the line of least resistance. If this is a serious limitation to existing objective tests, it may be lessened somewhat by a liberal use

of tests designed to measure understanding, of the type described above.

Incidental observation seems to reveal that those students who make the highest scores on objective tests are the ones who can discuss the problems of the course with the greatest measure of intelligence and insight. By the same standards, those students who make the lowest scores on objective tests display but little ability in discussing such problems.

(6) Criticism on the ground that objective tests contain a subjective element. Strictly speaking, an objective test is one which is scored with a key; such a test leaves little or nothing to the opinion of the grader. It is to the merit of objective tests that they may be graded with greater accuracy than other types of tests. It is true that the test designer uses subjective judgment — that is, his personal opinion — in preparing a scoring key. The test items of standardized tests are carefully checked for accuracy and meaning. Only a small amount of disagreement is found between keys prepared independently by competent persons. To the extent that disagreement as to the proper way to score an item exists, the advantage of scoring by a key is lessened.

(7) Criticism on the ground that some students are lucky in guessing the answers. This objection either shows lack of familiarity with certain essential facts or it indicates a desire to criticize at any cost. In the first place, one person is not any luckier in guessing than is another. In the second place, guessing is adequately taken into account in any intelligent use of objective tests. Statistically, there is one chance in 1,024 of successfully checking, by guessing, all the items on a ten-item test of the true-false type. They are many times less on a multiple-choice test of the same length. When an objective test contains something like a hundred items, and when several such tests are given in a course, guessing is not a significant factor.

There is a measure of justification in most of the criticisms of objective tests. The writer has attempted to distinguish between unwise use of these tests and the criticisms which are more or less inherent in their nature. The objective test has greater possibili-

ties than have been realized. Certainly, all the criticisms have been justified in the light of current practices. There are testing fields where, admittedly, the essay type of test is superior at present. Educational outcome should be evaluated in terms of all the objectives of a course. Objective tests should be scrutinized carefully to see whether or not they adequately meet all the testing needs. Whenever they do not — and they frequently do not — there should be no hesitancy in using other testing methods.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. Why may we not take for granted the outcome of instruction?
2. Explain and evaluate the proposed methods of evaluating educational result.
3. What is your reaction to the following statements:
   (*a*) Whatever exists is measurable
   (*b*) The only way to know the effect of instruction is to measure it.
   (*c*) Without measurement in education there can never be any science of education.
4. Why is it so difficult to evaluate educational outcomes in terms of behavior?
5. Make a list of valid uses of measurement.
6. What are the distinguishing characteristics of standardized tests? Of objective tests?
7. What are the advantages of standardized tests? Of objective tests?
8. Make a list of the valid objections to objective testing as it has been practiced.
9. Do you see any educational value in personality tests? Can such tests be used in the evaluation of instruction? Explain your answer.
10. Find the IQ of a child of seven whose mental age is seven years and ten months.
11. List the various means of interpreting test scores. What are their advantages?
12. Can you suggest any undesirable effects of testing which apply to all kinds of measurement?
13. (*a*) Find the EQ of a pupil of ten whose EA is ten years and ten months.
    (*b*) What is his AQ if his IQ is 100?

14. If a given test is known to be reliable, is it necessarily a desirable test to use? Explain.
15. If a given test is known to be valid, is it necessarily a desirable test to use? Explain.
16. What is it about a science that makes it an exact science? Education is not an exact science. What would be necessary to make it so?
17. Why should the student of education or the teacher have some knowledge of elementary statistics?
18. A given pupil has a percentile rank of 81 in intelligence test performance. What does this mean?
19. What determines whether or not a given testing program is adequate?
20. What is the PR corresponding to a test score of 150, of 165, of 180, in Figure 12, Appendix (p 474)?
21. Are educational tests always valid? Have we educational tests for measuring all the outcomes of organized instruction? If not, what supplementary methods of evaluating learnings should be used?
22. Evaluation is a function of the learning process, and tests should take their place along with other elements in the process of instruction. Explain fully.
23. Some uses tests have been made to serve are only remotely related to the immediate purposes for which they were constructed. Give examples.
24. What are the limitations of the AQ?
25. Suggest provisions for evaluating outcomes in a curriculum program. Why should the curriculum provide for continuous evaluation? Why should provision be made for evaluating individual progress? Why should evaluation stimulate rather than retard? Why should evaluation be in terms of the aims of education? Why should the course of study contain suggestions for evaluation? Why should definite provision be made for the results of evaluation to be utilized in continuous revision of the curriculum?

SELECTED REFERENCES FOR FURTHER READING

Harold H. Abelson, *The Art of Educational Research.* World Book Company, 1933.

Leonard P. Ayres, "History and Present Status of Educational Measure-

ment," in National Society for the Study of Education, Seventeenth Yearbook (1918), Part II: *Measurements of Educational Products.*

William C. Bagley, *Education and Emergent Man.* Nelson, 1934.

Charles E. Benson, James E. Lough, Charles E. Skinner, and Paul V. West, *Psychology for Teachers.* Ginn, 1933.

Andrew W. Brown and Christine Lind, "School Achievement in Relation to Mental Age," *Journal of Educational Psychology,* Vol. XXII (November, 1931), pp 561–576.

Hollis L. Caswell and Doak S. Campbell, *Curriculum Development,* Ch. XIII American Book Company, 1935.

John L. Childs, *Education and the Philosophy of Experimentalism.* Century, 1931.

Frank N. Freeman, *Mental Tests* Houghton Mifflin, 1926.

Fred P. Frutchey, "Measuring the Ability to Apply Chemical Principles," *Educational Research Bulletin,* Vol. IX (Dec. 13, 1930), pp. 255–260.

Harry A. Greene and Albert N. Jorgensen, *The Use and Interpretation of the Elementary School Tests.* Longmans, Green, 1935.

Melvin E. Haggerty, Willard C. Olson, and E. K. Wickman, *Behavior Rating Schedules.* World Book Company, 1930.

Manly Harper, *Social Beliefs and Attitudes of American Educators.* Teachers College, Columbia University, Contributions to Education, No. 294, 1927.

Hugh Hartshorne and Mark A May, *Studies in Deceit.* Macmillan, 1927.

Charles H. Judd, *Education as Cultivation of the Higher Mental Processes.* Macmillan, 1936.

Truman L. Kelley, *Interpretation of Educational Measurement.* World Book Company, 1927.

——— and August C. Krey, *Tests and Measurements in the Social Sciences,* Part IV of the Report of the American Historical Association Commission on the Social Sciences. Scribner, 1934.

Charles W. Knudsen, *Evaluation and Improvement of Teaching.* Doubleday, Doran, 1932.

Walter S. Monroe, "Existing Tests and Standards," Ch. VII of National Society for the Study of Education, Seventeenth Yearbook (1918), Part II: *Measurements of Educational Products.*

Henry C. Morrison, *The Practice of Teaching in the Secondary School,* Ch. V. University of Chicago Press, 1926.

New Standard Achievement Tests. World Book Company. See especially the Manual of Instructions.

Willard C. Olson, *Problem Tendencies in Children.* University of Minnesota Press, 1930

Ruth Peterson and Louis L. Thurstone, "The Effect of Motion Picture Film on Children's Attitudes toward Germans," *Journal of Educational Psychology*, Vol. XXIII (April, 1932), pp. 241–246.

Sidney L. and Luella C. Pressey, *Introduction to the Use of Standard Tests.* World Book Company, 1931.

Laurance F. Shaffer, *The Psychology of Adjustment*, Parts III–IV. Houghton Mifflin, 1936.

Mandel Sherman, *Mental Hygiene and Education.* Longmans, Green, 1934.

James B. Stroud, *Educational Psychology*, Chs. XIII, XV. Macmillan, 1935.

—— and William J. Boldt, "Changes in the Attitudes of College Students," *Journal of Educational Psychology*, Vol. XXV (November, 1934), pp. 611–619.

Percival M. Symonds, *Diagnosing Personality and Conduct.* Century, 1931.

Edward L. Thorndike, "Educational Measurement of Fifty Years Ago," *Journal of Educational Psychology*, Vol. IV (November, 1913), pp. 551–552.

Marion R. Trabue, *Measuring Results in Education.* American Book Company, 1924.

Ralph W. Tyler, "A Test of Skill in Using a Microscope," *Educational Research Bulletin*, Vol. IX (Nov. 19, 1930), pp 493–496.

—— "Defining and Measuring Objectives of Progressive Education," *Educational Research Bulletin*, Vol. XV (Mar. 18, 1936), pp. 67–72.

—— "Measuring the Results of College Instruction," *Educational Research Bulletin*, Vol. XI (May 11, 1932), pp. 253–260.

J. E. Wallace Wallin, *Clinical and Abnormal Psychology.* Houghton Mifflin, 1927.

Goodwin B. Watson, *The Measurement of Fairmindedness.* Teachers College, Columbia University, Contributions to Education, No. 176, 1925.

Louie W. Webb and Anna M. Shotwell, *Standard Tests in the Elementary Schools.* Farrar and Rinehart, 1932.

Guy M. Wilson and Kremer H. Hoke, *How to Measure.* Macmillan, 1931.

CHAPTER XVI

PROGRESS IN EDUCATION

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The Notion of Progress. Each of the preceding sections of this text presents the best current thought and practice on the topic with which it deals. But this thought and this practice are themselves the outcome of much past experience. Some students of the past, like Henry Fairfield Osborn, have estimated that man has been on our little earth half a million years. During this time he has made progress, and our best present thought and practice will certainly be surpassed in the days to come. What is best at any given time is conditioned by the needs of the time; thus, the needs of an agrarian age are not met by the implements of the earlier pastoral age, and the needs of an industrial age are not met by the implements of an agrarian age. There comes a time when the shepherd's crook is supplemented by the plow, and then the plow by the factory. This line of thought brings to our minds the notion of progress, to which the present chapter will be devoted.

Our discussion will present five main aspects of the question, as follows: the nature of progress in general; the nature of educational progress in particular; the main lines of educational progress (to which most attention will be given); future educational progress in America; and ways to promote educational progress.

The Nature of Progress in General

The Nature of Progress. How shall we conceive progress? Very simply: progress is change for the better. But what is "the

better"? The better consists of those things most prized by man at any particular time. It is possible that there is an absolute good for man, as Plato held, but this matter we must defer to the following chapter. The things most prized by man are called "values." Progress then, or change for the better, may be conceived as the increasing realization of the values of life.

Since *freedom* is one of the things most highly prized by man at all times, progress might be somewhat specifically conceived as growth in freedom. By freedom is here meant the control the individual exercises over his own affairs.

Another value that is highly prized by man is his *control* over the forces of nature. Such control presupposes scientific knowledge and involves inventions. From this standpoint, progress could be regarded as man's increasing mastery of nature, or even as the increasing victory of the spirit over matter.

Democracy as a form of political organization never comes first in human society. It is an outgrowth of various antecedent forms of government, usually involving a more or less absolute ruler of some kind. By contrast it is held, correctly or incorrectly, that in a democracy the normal, educated individual can rule himself and that a society of such individuals can rule itself. In a democratic society, progress can be regarded as the increasing recognition of the common man. Related to this view is the altruistic one that progress consists in making the blessings of the few more available for all.

This last view of progress finds expression among the last words written by a lamented and distinguished American educator, as follows:

> . . . civilization itself in its fuller and finer sense has been a human growth through which an ever more inclusive proportion of mankind has come into an ever-increasing and broadening common welfare.[1]

In sum, then, progress in general consists in the increasing enrichment of human life.

[1] A. Duncan Yocum, "Dr. Dewey's 'Liberalism' in Government and in Public Education," *School and Society*, Vol. XLIV (July 4, 1936), p. 2.

Is There Progress? But some reader will naturally raise the question whether the story of man really reveals any progress. Only a pessimistic philosophy could deny it. A pessimistic philosophy holds that life itself is misery and that progress could only be progress in more misery. But if life itself is a good, then there can be, and there has been, progress in the art of living. The evidence that life is felt as a good is that most men go on living as long as they can. To normal healthy persons there is something shocking about suicide.

The doubt concerning whether actual progress has taken place is due to taking too short a time into consideration. Astronomers who assembled in Syracuse, New York, in the summer of 1936 held that our earth was some two and one-half billion years old. At that remote point in time the earth was cast forth from the lap of the parental sun. In the course of that long time-span have come land and water, the myriad forms of plant life, the thousand forms of animal life, and the human species. In the estimated half-million years that man has been on the earth, he has both adjusted himself to many environments and also modified his environments to meet more nearly his own needs. He has learned to cook his food; to clothe himself; to build a shelter for himself; to organize his life in home and society; to use language to communicate his ideas and feelings; to make use of written symbols to preserve his thoughts; to acquire, preserve, and increase knowledge; to invent and to use tools and machinery; to enjoy beauty and to produce works of art; to fashion codes of morals and of law; and to worship. Our doubt about progress arises when we take a short time-span and ask whether modern man is more intellectual than the Egyptians, or more aesthetic than the Greeks, or more practical than the Romans, or more religious than the Hebrews.

The fact of progress can be denied only with difficulty, and it is easy to anticipate with Browning that "the best is yet to be." Few of us would prefer to have lived in some past age, because we can relive that age in imagination, and everything since in addition; but many of us would prefer to live in some future age of man, so as to see what new things he will do.

The Nature of Educational Progress

Educational Progress Defined. In this text our interest is not so much in progress in general as in educational progress in particular. True it is that, in the broad sense of the term "education," all life is educative; man profits by living and by the experience of the race. In the narrow sense of the term, however, education is not life but schooling. In this narrow sense, education is what parents and teachers consciously undertake to do for children, that their life in society may be properly adjusted; it is the conscious influence of the older generation upon the younger. Educational progress then would mean any improvement whatsoever in the process of consciously influencing the young.

Phases of Educational Progress. Conceivably, there might be improvement in the conception of what education is and what it is for; in the number of persons in any given society who profited by it; in the way in which it was organized in institutions; in its content, or curriculum; in its methods of instruction; in the types or kinds into which it was divided; in the training of those who purvey it; in school buildings and equipment; and in other similar matters. Educational progress has taken place in all these respects. Books have been written on the history of education which tell the story of educational progress. A partial list of them appears in the bibliography at the end of this chapter. It requires but little reading in this material to help us realize that children generally are being taught more things and more wisely today than usually in the past. In the immediately following discussion, we shall see something of what our educational progress has been.

Lines of Educational Progress

1. In Conceptions of Education

Dewey's conception of education is as follows:

> It is that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience.[1]

[1] John Dewey, *Democracy and Education*, pp. 89–90. By permission of The Macmillan Company, publishers, 1916.

This definition means that education so modifies experience that the present meaning of experience is enriched and that the future course of experience is influenced. Education thus becomes an agency for transforming personal and social life. It is progressive in character, emphasizing the present and looking toward the future rather than the past.

It would be a mistake to suppose that this theory of Dewey's is universally accepted today, even in America. It is accepted by the pragmatists (or experimentalists), but it is rejected by both the realists and the idealists. The meaning of these terms and the significance of the present conflicting views will be indicated in the following chapter. In order to point a contrast and to focus our discussion, this view of Dewey's, now held by many leading educators, will be used in this immediate discussion, but such is not the conception of education generally held hitherto. There has been progress in the conceptions of education. Let us illustrate.

The Primitive Conception. Primitive societies today do not represent primitive man, but man in a retarded state of development. In such societies, there is little educational theory, though there is much educational practice. Education is the process of assimilating the young into the life of the tribe, clan, or other group. Imitation is at a maximum, invention at a minimum. A wrong note must not be struck in the tribal music. Customs must be followed exactly. Education is racial conformity. Modern society has not so much outgrown this conception as added to it.

The Oriental Conception. The ancient Orient, in contrast with primitive societies, had developed a written language and so a storied past. It was dominated by this past, as primitive societies are dominated by customs and taboos. Education consisted in the transmission of this heritage. Memory was central in importance. So it was in China and in India. There were classics to be learned, and the learning of the classics so as to recite them perfectly was a badge of the mandarin in China. As primitive societies practiced conformity to custom, Oriental societies practiced until recent years conformity to the past. Such conformities are in diametrical con-

trast with Dewey's conception of education as progressive, and with the view of Emerson that "the heart refuses to be imprisoned."

The Greek Conception. The ancient Greeks, or Hellenes as they called themselves, were very original in many respects. They developed the conception of education for leisure. There were free men and there were slaves. Education was not required by slaves, who learned by experience only; but free men were trained in music for the soul, in gymnastics for the body, and in dancing for both body and soul. This was the conception of education as liberal — that is, suited to free persons. It was a valuable conception and it has been very influential, however restricted in its outlook. It was not the modern conception of education as progressive. For us, education is not that suited to the free man, but that suited to make man free.

The Roman Conception. The conquering Romans were a practical people and they conceived of education in practical terms. The very term "education" is Latin, but it does not mean "to lead out" as is often mistakenly said; rather, it means "to bring up." The Romans rejected the Hellenic conception of education for leisure in favor of the conception of education for action. Education was a training for vocation, especially for the vocation of the orator. Cicero, the greatest Roman orator, and Quintilian, the greatest Roman teacher, alike indicate that the orator must be a learned man in order to plead cases successfully in the Roman courts. This conception of education as vocational is again in sharp contrast with the current conception of education as exerting a transforming influence on society. Yet, in a secondary sense, education still remains vocational.

The Medieval Conception. During the medieval period education was conceived as a discipline. The body required discipline and the soul required discipline. The appetites of the body were unruly and the will of man was perverse. Asceticism disciplined the body and scholasticism disciplined the mind. It was discipline in this life which best prepared man for the life to come after death. When the barbarians were making inroads upon civilized societies, the conception of education as discipline was needed

and natural, but today this conception of discipline plays a secondary rôle.

The Renaissance Conception. The great Renaissance period revived the Greek and Roman conceptions of education, but added nothing distinctive to them. The revival of these conceptions was itself service enough for the Renaissance to render.

The Reformation Conception. The Protestant Reformation developed the conception of education as a religious necessity. This view was a logical outcome of the doctrine that the individual must exercise saving faith for himself, that the rites of the Mother Church alone are not sufficient for salvation. To exercise the right of private judgment intelligently, to have faith effectively, the individual must be educated. Here begins in the modern period the democratic conception that education is for all, resting upon the New Testament view of the infinite worth of the individual soul. In this Protestant conception, as in the medieval conception, there is much more emphasis upon "otherworldliness" than is current today. However, this should not imply that the current emphasis is just right.

Rousseau's Conception. Rousseau's conception of education in the eighteenth century was both individualistic and naturalistic. It was both these things for the same reason: namely, that he rejected the conventional regimented society of his day. As a reaction against the society he personally disliked, he would educate his ideal pupil, Emile, for himself in accordance with nature. Emile was to be first a man, not a citizen; and was to express his natural tendencies, which were held to be good, without any sense of external restraint. These views are historically important. If Dewey is the father of modern "Progressive Education," Rousseau is the grandfather; but we should insist today that society is natural, too, and so Emile's individuality should be cultivated in society and not apart from it.

The Developmental Conception. Under the influence of Rousseau, Pestalozzi, and Froebel, there arose the conception of education as development or unfolding. The idea here is that education draws out of the soul what is already in it. Socrates held a similar view.

Pestalozzi refers to the "harmonious development of the powers of the mind." This conception is still widely held, though it is being modified by the current biological view of experience as the interaction between an organism and its environment. From the latter standpoint, education is not unfolding but adaptation; not bringing out germinal powers but making adjustments, both of the organism to its environment and of the environment to the organism.

Conclusions. We have reviewed some of the stages of progress in conceiving education as this or that in the course of time. There has been little intention to evaluate, but mainly to illustrate. Conceptions of education depend upon the needs of the time, the existent state of knowledge, and the current attitudes toward life. It is probable that twentieth century conceptions of education are the best yet evolved, but it is certain that these conceptions are not final. They, too, will give place to others as societies change and the ideals of man enlarge. Progress is one of the laws of life.

2. Toward Equality of Educational Opportunity

Equality of educational opportunity does not mean identical opportunity for all, but suitable opportunity for each. The stork is unequally equipped to eat from the dish with the fox, while the fox is unequally equipped to eat from the vase with the stork. Natural inequalities exist. If identical opportunities are placed before unequals, the results are unequal and unjust; but if suitable opportunities are placed before each, the results may still be unequal, but, at least, they are just. It is nature or Providence (according to one's philosophy) that makes man by heredity unequal. This native inequality is recognized when suitable opportunities for each are provided.

Progress in Equalization. One of the striking things in the story of man's education is the equalizing of educational opportunity. The process of equalization is far from having completed itself, but it is on its way. A larger and larger proportion of mankind is being constantly educated, and the proportion that is being edu-

cated is having its natural differences and its specific abilities regarded. Thus, the progress in equalizing educational opportunities is both extensive and intensive. It is extensive in reaching a larger proportion of the population, and it is intensive in reaching the individual needs of this ever enlarging group.

Recognition of the needs of the individual, instead of treating all alike in school, is in theory old but in practice new. Plato recognized that there were individual differences and so did Quintilian, but the general practice of educating pupils with different gifts differently is a matter of the last hundred years. Naturally, it was the defective groups which first forced educators to treat them differently from the normal. The blind and the deaf were so different that, if they were to be educated at all, they must be educated differently. Other groups followed, such as the crippled, the cardiac, the tubercular, the dull, the delinquent, and finally the very bright. The coming of intelligence tests has made it possible to group pupils into the slow, normal, and rapid advancement classes, though such grouping is best made on the basis of all the conditions affecting pupils, and not on the basis of the "intelligence quotient" alone. By thus having regard to individuals and to groups of similar individuals, progress is being made in equalizing educational opportunity intensively. To each individual is increasingly being given education according to his need.

Extensive Equalization. In primitive societies there is little schooling, but everyone participates naturally in the life of the group. Systematic schooling came in with the Oriental civilizations, but only a very small proportion of the populace received this formal education. The priests in Egypt, the military leaders in ancient Persia, the Brahmins in India, the scholars in China, were formally trained, but they were only a small percentage of the whole. The vast masses of the people, like the primitives, were educated unconsciously by the processes of society.

In Greece there were few free men and many slaves, and only the free attended the schools. The same thing was true of Rome. The "eternal city" had been founded some five hundred years before the simplest school existed, and after a complete system of

schools was developed the attendance was limited to those destined to some form of military or social leadership.

In the Middle Ages the priests and the nobles, the upper classes in society, received formal training while the masses of the people continued to learn as they had always learned, from the vicissitudes of life.

Under the influence of the Renaissance the few social and political leaders received training at the hands of the humanistic scholars while the masses of the people had no occasion whatever to learn Latin and Greek.

Wherever the influence of the Protestant Reformation extended, in Germany, in Switzerland, Holland, Scotland, Scandinavia, and colonial America, there the importance of elementary education for all was stressed and schools sprang up to educate the people. Because there was no compulsory education, the actual percentage of the population reached was always small, though larger than hitherto.

Following the American Revolution in 1776 and the French Revolution in 1789, there came the growth of the modern leading nations, and with this growth came the greatest advances in science and industry. The demands for the education of all the children of all the people became more numerous and more insistent. Education came to be regarded as a tool of nationalism, and this in both the democratic and the non-democratic countries. Democratic countries, relying on self-government and majority rule, were compelled to educate their citizens to think in order to arrive. The non-democratic countries, in order to regiment their subjects, and to make them loyal to the purposes of their government, began an attack on illiteracy and combined this with systems of indoctrination, whether fascism, communism, or some other form of absolutism.

The result is that today all leading nations undertake to educate all their citizens according to their specific systems. In theory, at least, every child in every leading nation in the world today goes to school. Thus has progress been made in the extension of educational opportunity to all.

The significance of this movement in our own country is so great and so important as to make it one of America's distinctive contributions to civilization.[1]

3. In Educational Organization

The term "educational organization" refers to the institution or the institutions by which education is provided. Usually educational institutions have special buildings devoted to specific purposes.

Historic Review. Here again progress is notable. The primitive educational organization is that of the society itself. There is no special institution devoted to education. In the settled life of the Orient, education becomes organized in temple schools, with the priests as teachers. Among the Greeks there were two main schools, the music school and the gymnastic school. The music school took care of the noble youth during childhood, and the gymnastic school during adolescence. Plato introduced what we should call university education in his Academy, and Aristotle continued a similar plan in his Lyceum.

The Romans were the practical organizers of the ancient world and have left us a complete system of educational organization dating from the imperial period. There was education in the home by parent or tutor; then the elementary school, called *ludus;* then the grammar school, corresponding roughly to our upper grammar grades and junior high school; then the rhetorical school where orators were trained; and finally there were companies of scholars at work in libraries.

The Jews had synagogue schools and rabbinical schools, for the laity and the priests respectively. The early Christians followed these models in their own catechumenal schools for beginners and catechetical schools for the clergy.

During the medieval period these were continued as parish schools and cathedral schools. Rulers like Charlemagne and King

[1] Herman H. Horne, "The Democratic Tradition in American Education," *School and Society*, Vol. XXXI (May 11, 1935), pp. 631–637.

Alfred also had palace schools for the children of the nobility. Under feudalism there were castle schools for the knights. The cathedral schools in time developed into the medieval university, which was a guild of scholars, often from many countries. The parish schools became song schools and chantry schools in which the priest taught the rudiments of learning to the children of the community. With the rise of the merchant class at the end of the Middle Ages came the burgher schools where practical subjects were taught. Thus, the medieval organization of education was not close-knit, but diversified.

The humanists of the Renaissance often did their teaching in the court school of some prince, as Vittorino did at Mantua. The universities of the period were slow to admit the new learning, but finally opened their doors to it.

The modern period in Europe has witnessed the interesting development of a two-class system of education. "The people" are educated in the elementary school, and the upper classes are educated in a secondary school for which there is a special preparatory school. Tuition has generally been free in the elementary school, but not in the secondary school. Thus the European upper and lower classes have generally been educated in schools held to be suitable to their station in life. Since the World War there have been some efforts in England, France, and Germany to overcome this two-class system of education. Russia has in theory but one class in society, the workers and peasants, and so requires but one type of education — the communistic.

American Organization. The progress of educational organization in America is a reflection of the growth of American life and ideals.[1] It has consisted mainly in diversification to meet the needs of different social groups. As the number of persons to be educated has grown, it has become necessary to multiply the types of education offered. We may naturally expect this process to continue as human society becomes still more complex. Especially in the field of secondary education, where individual differences in talent are most marked, will new types of school appear.

[1] Cf. Ch. II, pp. 44–49.

4. In Content of the Curriculum

Practicality the Original Root. Subjects are first introduced into the curriculum to meet some actual and present felt need in the community. Studies are first of all what pupils need to know in order to do what they are supposed to do. Thus they begin by being practical and functional.

Such is the inertia of social habit that studies once introduced into the curriculum remain as a matter of custom long after their first usefulness is over. They then become decorative or disciplinary in character and continue to be taught and studied for these new reasons, just as buttons on the sleeves of a coat, which were once useful for buttoning back the cuff, now remain as a decoration; or as the man still walks on the outside of a sidewalk while the lady walks inside, as a matter of custom, though originally the inside was the drier place, as the drainage went through the middle of the street.

Curriculum Construction. A new study has arisen in our generation, called curriculum construction.[1] It arose because educators became aware that the schools could not go on forever adding new needed subjects and dropping none. So the questions became crucial, What shall we cease to teach? What new things shall we begin to teach? Criteria for constructing a curriculum today are required. Among these criteria are social needs and individual interests. Sometimes these two criteria conflict. In this case, social need is the more dependable factor, as individual interests vary widely. But as society changes, social needs change too, just as new environmental conditions, like airplanes and submarines, bring in time new diseases for medicine to master.

In this way it comes about that progress in the content of the curriculum is one with the progress of society itself, except that the school usually lags behind the actual needs of society. The coming school will be more sensitive to social need.

The following quotation will illustrate curriculum revision in our own day:

[1] Cf. William H. Kilpatrick, *Remaking the Curriculum*. Newson, 1936.

HOOKWORM AND HIGH SCHOOL

In a poverty-stricken mountain county where 90 per cent of the country children have hookworm and whole families live in windowless shacks, should the ideal high school program center mainly in Latin and algebra?

Experimenters in Breathitt County, Kentucky, during the past year decided that it should not Fortified by the blessings of the University of Kentucky and by elaborate surveys of county conditions, in a single ruthless gesture they plucked from the high school curriculum all foreign languages, all mathematics beyond elementary algebra, and all old-type courses in history.

In their place were put courses in hygiene and physical education related to local health needs, intensive practice in English, in agriculture and in home economics, and a social studies course centered largely about regional economic conditions. Simultaneously, cut-and-dried textbooks yielded in part to specially prepared radio broadcasts, government reports, and newspapers.

One of the "major triumphs" of the year, according to Wilbur I. Gooch and Franklin J Keller of the National Occupational Conference, was the study by the pupils of crime and delinquency in their own country.

The experiment, which will continue for four more years, is part of a general guidance program undertaken in Breathitt County as a typical southern Appalachian community. Sponsored by the Southern Women's Educational Alliance, the venture has had the aid of the Carnegie Corporation, the United States Department of Agriculture, the University of Kentucky, and the National Occupational Conference.[1]

Historic Review of the Curriculum. A short review of the content of the curriculum will illustrate for us how practicality has been the main determining principle. Children in primitive communities learn the occupations of the adults — fishing, hunting, planting, weaving, pottery-making, canoeing, and the use of tools.

The learned Egyptian priests, in addition to religious lore, taught the arts of mensuration, because of the annual overflow of the Nile. Children in the Orient learned the art of calculation, by the aid of

[1] Eunice F. Barnard, *New York Times*, July 19, 1936.

the abacus or by making figures in the sand, and also to read the sacred documents and to write on the leaves of the papyrus.

The aesthetic Greeks taught their children all those things over which the Muses presided, including music, literature, history, and dancing. Being athletic, they also taught children gymnastics in the wrestling school. Rhetoric, mathematics, and philosophy were added in the days of Pericles. In mathematics and philosophy the idealistic Greeks developed the view of knowledge for its own sake because the use of knowledge in the practical arts was thought to be menial. This view has been very influential and has kept in the curriculum many subjects which, on the basis of narrow practicality alone, would have been excluded.

The militaristic Spartan Greeks and the Romans taught their children the arts of warfare, the use of bow and arrow, javelin, and spear, and how to ride and swim. The Romans added public speaking as necessary to success in the law courts.

The Greeks and the Romans bequeathed in germinal form the "seven liberal arts" to the medieval period. These were arithmetic, geometry, astronomy, grammar, rhetoric, dialectic (logic), and music. To these was added theology as the capstone. Each served in a specific way the needs of medieval life; for example, astronomy was used in calculating the movable feast of Easter.

The Revival of Learning as one phase of the Great Renaissance put Greek and Latin into the curriculum. Schools arising under the influence of the Protestant Reformation paid central attention to the Bible as the seat of authority in religion.

The nineteenth century witnessed the addition of science, history, and the social studies. As these subjects developed, largely outside the school, the demands became insistent that children study them.

Today the essential problems of life are felt to be chiefly economic and social in character. In consequence, one of the main questions in curriculum revision is whether the social studies, the actual study of social problems, should now be given the central place.

It is generally recognized today that children are educated not

simply by their studies but by their games and other occupations. Thus have arisen the so-called extracurricular activities which are legitimately demanding a place for themselves. The curriculum itself is becoming a matter of activities and experiences.

In sum, there has been progress in the content of the curriculum as there has been progress in living itself. The weaknesses in the curriculum have generally been two: that the curriculum has not changed with life, and that it has carried on outgrown forms of life. We may anticipate in the future a more changing and flexible curriculum.

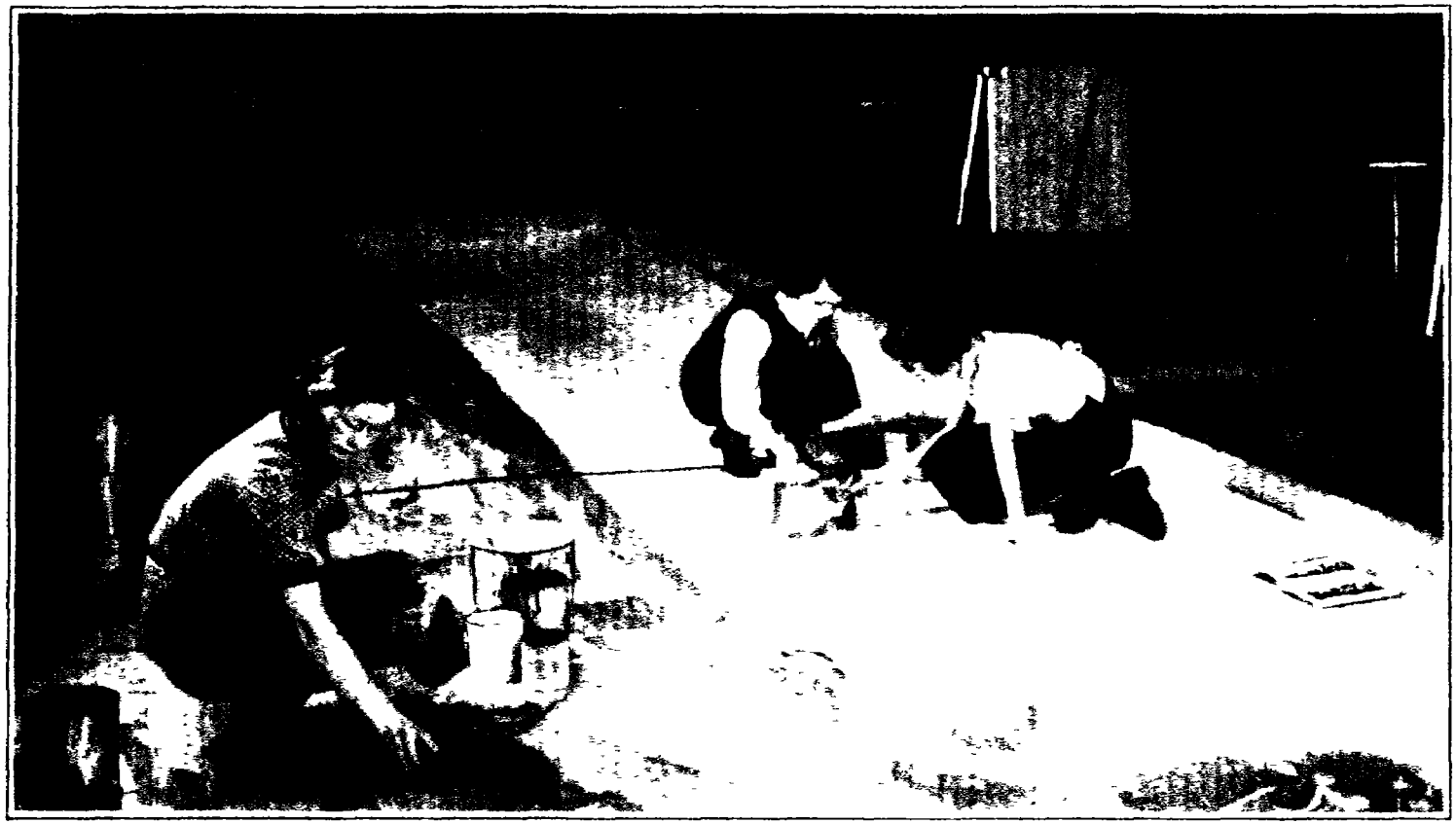
5. In Methods

New Methods of Today. Reform in educational method has been most active during the present century, but this century inherited from Rousseau in the eighteenth century and from Pestalozzi, Herbart, and Froebel in the nineteenth century. Rousseau, Pestalozzi, and Froebel all taught that children should learn by doing. This principle is central today in the most modern schools. It is commonly called "the project method."[1] The project method may be used by one individual working alone, or preferably by a group of individuals. In any exhibit of modern school work done in the grades today, one notices such things as a steam engine, a steamboat, a fire engine, an airplane, a bungalow, even a town, made under guidance by the children themselves. As they make these things together, they are interested in what they are doing, they learn much, and their social nature is cultivated. The teacher is not so much an instructor as a guide. The school is centered in the interests of children. The things they learn are matters of experience. The sense of need for what they do is first developed. They enjoy much freedom in moving around and in conversation. There is a feeling of self-expression with but little repression, and that only as exercised by the group. Discipline is a resultant, not a cause of the learning. Effort is made because of an interest that is felt. The motive for what is done is immediate, not remote. There is no sense of coercion or of an

[1] Cf. William H. Kilpatrick, *Foundations of Method.* Macmillan, 1925.



RUNNING THE LIGHTS FOR "PEGGIE AND THE PIRATE"
West Junior High School, Binghamton, N. Y.



PAINTING THE SCENERY FOR "PEGGIE AND THE PIRATE"
West Junior High School, Binghamton, N. Y.

imposed task. The school is definitely occupational in character. First-hand learning is primary. What is transmitted from the past is needed at the time. Education becomes a creative process of achievement, the continuous modification of experience by activities.

Criticism of New Methods. All this indicates a great change from the older methods. In fact, the new is being questioned today as being both weak and weakening.[1] It is held by critics of the new "progressive education" that it is flabby, lacking the "tincture of iron"; that it trains pupils to do what they want to do instead of what they ought to do; that they do not learn to do the disagreeable things in life which nevertheless must be done; that impulse takes the place of reason and law.

In contrast, the older type of school is appreciated. There pupils learned respect for law, learned to obey, learned to put forth effort and to do what they were required to do. There the teacher taught the pupils sound and systematic learning and transmitted something of the accumulated knowledge and wisdom of the race. Pupils learned vicariously from the experience of others. They memorized more and recited more. The content of books was more valued. They proceeded from discipline to freedom and self-control, not from freedom to discipline. Their effort often led to a masterful interest in the higher levels of attainment instead of waiting on present felt interests. They were coerced at times because they were unruly, and it was good for them to have the fear of broken law and its consequences instilled in them. Education was first a process of assimilating the culture of the race, after which the individual might hope in a few cases to make some valuable creative addition to that culture. The race discovers, the school transmits.

This controversy over method is now going on. The more conservative view generally prevails; the more "progressive" view obtains in certain private well-conditioned schools and to some extent in the public schools. The Horace Mann School on

[1] Cf. William C. Bagley, *Education, Crime, and Social Progress.* Macmillan, 1931.

the elementary level and the Lincoln School on the secondary level, both connected with Teachers College, Columbia University, are experimenting with the newer methods. The outcome is very likely to be that the older type of school will make certain concessions to the newer methods without going all the way. So progress is attained.

The two pictures just drawn with the literature on method behind them show a very real interest in improving methods today. The interest itself is significant and promising.

Severe Historic Methods. The story of method shows it to have been rather harsh, formal, and barren for the most part. The ancient Egyptians had a saying: "A boy's ears are on his back; he hears best when he is beaten." Corporal punishment has been an almost universal feature of method. Those who have opposed it, like Quintilian and Locke, have been educational reformers. The Spartan methods were especially severe, the boys being flogged at the altar of Artemis till the blood came. The Roman poets declaim against the schoolmasters for their use of the lash and the ferule. Mistakes in Latin from then until recently have been corrected by the aid of the ruler. Lessons were set to be memorized and recited, not always to be understood, appreciated, and used. It was supposed that thereby the mind would be trained, even if the material on which it was trained served no further purpose. Often it was held that a boy's dislike for his book was very good reason for compelling his attention to it. The ancient Chinese learned their classics by rote without understanding them. Many later schools have taught likewise.

Results. There has been progress in educational method. It has taken the form of more respect for the pupil and less reliance on blows; more understanding and less memorizing; more emphasis on discovery and less on bare repetition. Even in colleges and universities there has come to be less lecturing and quizzing, and more discussion, conference, and laboratory and library work. More and more, teaching is coming to be leadership in learning. The teacher of the future will be a learner who shares his methods with his students.

6. In Other Matters

School Buildings and Equipment. The limitations of this work do not allow us to consider several other important lines of educational progress, such as the marvelous improvements in school buildings, school architecture, and school equipment during the course of the generations. The most imposing buildings in many communities, and regularly so in those rural sections where consolidation of school districts has taken place, are the schools. Along with the school buildings, increasing attention has been paid to school locations, school grounds, and athletic fields. In large cities, where ground is expensive, there are play places on the roof. The interior decorations of many school buildings are finely artistic. The modern idea is the combination of maximum beauty with maximum utility. In past ages and in some quarters of the globe even today the school has found a place for itself under a tree, in some shed attached to a larger building, under a pergola, in some room of the temple, on the floor of a mosque, in some room of a library, in a special building erected for the purpose, or, in our own country, in a "little red school house." It was a great day in educational history when Plato devoted the Academy to purposes of higher learning, thereby establishing a model for medieval and modern universities.

Increasing Regard for Childhood. The study of our race shows on the whole an increasing regard for childhood, its rights and its privileges. The Roman father had the right to forbid his infant to be reared, or to take his child's life, or to sell it into slavery. The race has often been inhumane to its children. They may have been unwanted, exposed to death, treated as encumbrances, cruelly handled, beaten, starved, shut up in dark closets, put to work in factories, overtaxed physically, and tortured. Of these things Charles Dickens has reminded us. The lot of girls has been peculiarly woeful. Teachers in most ages have treated pupils unmercifully. One sign of an advancing civilization is regard for child welfare, indicated in the reduction of the infant mortality rate. The causes that have led to a considerate treatment of

children are many, including a growing humane sentiment, which has included the lower animals; the tender sentiments of religion; the influence of the modern psychology of childhood; and the growing recognition that education should be a pleasant process.

Compulsory Education. One expression of the increasing regard for the rights of childhood is found in compulsory education laws. It appears that Rabbi Simon ben Shetach required the children in Jerusalem to attend school some seventy-five years prior to the advent of our era, and the Duke of Weimar in 1619 required the children of that small duchy to attend school. These were early sporadic instances. It was during the nineteenth century that the leading modern nations began to pass compulsory attendance laws. Enforcement was not common. Where such laws exist, they have usually covered the elementary school period. In most countries it has been thought enough that children, not adolescents, should be required to go to school. In our own country a recent tendency has shown itself to include the adolescent period as well. A number of states have set the upper age limit at sixteen years of age. The reasons for this trend are several, such as the requirements of intelligent citizenship in a democratic society; the inability of our economic society to absorb the services of young people; the recognition of the significance of adolescence as a period of youth, not primarily of economic productivity; the desire to avoid competition between young and adult workers; and the demand that growing nervous systems be not subjected to the rigors of our competitive industrial order. In harmony with this trend we may anticipate the day when children and young people will be kept in school through the age of adolescence, or at least until eighteen years of age.

Adult Education. A new idea of our own generation is that adults can and should continue their own education. It began with the need of workers to widen their intellectual horizon. It was accentuated by the rehabilitation of soldiers following the World War. The radio helped provide the means and stimulate the demand. Widespread unemployment offered the opportunity and increased the demand. Psychological studies proved that adults

can learn new things and stated the conditions.[1] Short summer courses for workers are conducted by many educational institutions. Year courses are provided now by both private and governmental agencies. Anything may be taught for which there is a demand. It is estimated that about one-sixth of our adult population is now continuing its education in special classes.[2] Such work contributes to both the efficiency and the pleasure of the individual and doubtless to the social welfare also. There is every reason to believe that the adult education movement will go forward, thereby improving the art of self-government.

Improvement of Teachers in Service. Teachers in service have felt the need of improving themselves, and authorities have encouraged such improvement by promoting and increasing the salaries of those who undertook it. Teachers institutes lasting for a day or for a few days began about the middle of the nineteenth century. These dealt with subject matter and methods. In the last quarter of the nineteenth century, summer schools for teachers began to be established. In time, they allowed credit for courses taken, so that academic degrees could be won. Colleges and universities in large cities began to offer late afternoon, evening, and Saturday courses which teachers might attend. In these and other ways the efficiency of teachers in service has been improved. We may expect this trend to continue upward with an ever better understanding of the laws of learning, on the one side, and an increasing demand that the schools become a force for social improvement, on the other.

At this point we must forego even mention of other lines of educational progress, and take a look forward.

Future Educational Progress in America

Uncertainty. It takes a long look backward and a broad look around to provide even a short look ahead. Even then, the short

[1] Cf. Edward L. Thorndike and others, *Adult Learning.* Macmillan, 1928.

[2] Eunice F. Barnard, "Back to School Desks Adult Millions Go," *New York Times Magazine,* May 17, 1936.

look ahead is unreliable because of unforeseen factors. The best we can do is to project past and present trends a little way into the coming age.

There is no evidence now of another dark age to come, when the lights of learning will be turned lower. On the contrary, it seems clear that the peoples of earth, our own among them, are bent on going on to more knowledge and better practice. The occasional substitution of emotion and prejudice for reason and judgment, even on a national scale, cannot be regarded in the nature of things as permanent. The ignoramus who does not know, and who does not know that he does not know, has no general recognition. Likewise, the obscurantist who prefers the twilight of ignorance to the dawn of knowledge has no following.

Conception of Education. We shall continue to improve upon our conception of education as we understand life better. Education will continue to be an agency for the ever richer fulfillment of life. This is a functional conception which may last.

Equality of Educational Opportunity. Equality of educational opportunity will be increasingly attained as democracy spreads. Our government will help equalize opportunity between states, and our states will help equalize opportunity within states. This equalization will affect favorably the underprivileged, whether the lower classes or the arrested races.

Educational Expenditure. To achieve this purpose, we may expect a tremendous increase in educational expenditure. In this item America leads all the rest at present, partly because of our high standard of living; but we still need both to spend more and to get more for what we spend.

The New Society. Being committed now to the democratic way by our tradition and heritage, it is not likely that America will cease to be democratic in its way of doing things. "The coming revolution" is already behind us; we had it in 1776. Now we can become anything we will by the peaceful means of democratic evolution, not by the forceful means of undemocratic revolution. We may expect our democratic spirit eventually to pass from the political to the industrial and the social realm. This would indeed

be "the new society" which the school will probably both teach and exemplify long before it comes into society.

Educational Organization. Our educational organization will become ever more diversified to meet the interests of growing children and the needs of a changing society. We may expect several different types of pre-school organization, including nursery schools and kindergartens. The elementary school, while continuing to develop skill in handling the tools of learning, such as reading, writing, and computing, will increasingly diversify and enrich its offerings, even though a separate school organization should not be set up for this purpose. The junior high school is here to stay and in time will receive universal recognition. The senior high school, "the people's college," will become differentiated still further to meet the specific needs of different adolescent groups. The junior college will become a universal institution, allowing our young people to live at home and attend college inexpensively. The senior college is too deeply rooted in our history and tradition to pass away, but it is likely to become increasingly vocational in character and preparatory to entrance upon professional schools, the graduate schools, or upon diplomatic and consular service, or other positions of social leadership.

Curricula. Our curricula will continue to change to bring them more into line with the needs of actual adult life and the real interests of students, though always retaining our basic racial cultural heritage. Sharp divisions between subjects will cease and interconnections will increasingly appear. The emphasis will be placed upon the curriculum as itself a way of living together.

Methods. The methods of the future will be many and varied. No one method will be formalized and made applicable to all subjects equally and alike. Something of this kind took place under the influence of the Herbartians. Their five formal steps of teaching will continue to be used in some subjects, like history, whose content requires systematic transmission from earlier to later generations. Dewey's five steps of reflective thinking — experience, problem, data, hypothesis, testing — may pass through a period of formalization, and then end where they belong, in the

scientific laboratory. Other methods, such as story-telling, questioning, and discussion will retain a place for themselves. The lecture method will largely disappear except in those cases where the lecturer has something to say not yet in print, or is making use of the radio. Visual and auditory aids to learning will enormously increase, the educational uses of moving pictures and the radio having hardly as yet been tapped. The use of the drama and the dramatic method in making truth vivid will increase. The project method — especially the group project — will long continue the best for young children. We can hardly anticipate that even such formal processes as memorizing, reciting, and drill will altogether disappear, because of their value in fixating useful material. Lesson assignments will be logical "units" of study or parts of such. Interest, as Rousseau and Herbart taught, will be basic in instruction, but not exclusive of the effort that fathers interest. Travel will round out and vitalize the educative process.

Vocational Education Vocational education will in time become so extended that every type of service will have its period of training, thus abridging the process of learning from practice. This will apply, with the progress of democracy, even to political offices, and in that day something of Plato's dream that the officers of state be recruited from the meritorious and the equipped will be realized.

Compulsory Education. We may anticipate that pupils, before many years, will be kept in school by law until eighteen, the schools meantime having so diversified their programs that the time will be well spent. Those who seek the most advanced training will voluntarily remain, as often now, in educational institutions till twenty-five.

Other Matters. The movement for the equal education of women will receive no setback. Teachers even in the elementary schools will in time be college graduates. Their training will continue in service according to need. An increasing proportion of the whole adult population will be engaged in studying the problems that concern all. One of the first results of such study will be a tremendous increase in all forms of coöperatives.

Need for Planning. Without taking careful thought for the morrow, we cannot adequately build for it. We must recognize, however, that our best thinking leaves us still somewhat at the mercy of circumstance. Our living is itself inevitably a process of experimentation, even though our philosophy need not commit us to the view that the universe is experimenting.

Ways to Promote Educational Progress

No person who is himself receiving a good education can be indifferent to educational progress. The question here is not the important one raised elsewhere in this text as to how the schools can contribute to social progress. Rather, it is how society and we, as members of society, can contribute to educational progress. Some illustrations may help us.

Socrates contributed to educational progress by asking questions skillfully; hence "the Socratic art." Plato aided progress by showing that the Republic required education to maintain itself. Aristotle aided education by formulating the sciences and also the art of reasoning. Quintilian told us how an orator should be trained. Comenius mapped out a system of school organization. John Locke wrote out penetrating thoughts on how children should be taught. Rousseau wrote an educational romance. Pestalozzi reformed elementary educational method by basing it on sense perception. Herbart devised a method for presenting a subject effectively. Froebel formed an institution for children of pre-school age. Herbert Spencer said science was the knowledge of most worth. William James gave and published talks to teachers. Horace Mann organized education for the state of Massachusetts. Henry Barnard established the *Journal of American Education.* John Dewey established an experimental school. Thus individuals, following their bent and taking their cue from the needs of their day, have made their notable contributions to educational progress.

Social revolutions, like those of the twentieth century in Russia, Italy, and Germany, have changed educational systems quickly

and completely — and, in the eyes of the revolutionists, at least, for the better.

What Progress Requires. Among the things needed today to forward educational progress are teachers with inspiring personalities; a public opinion enlightened on educational questions; the readiness of taxpayers to vote increased support for wise educational expenditures; the aid of the Federal Government in financing education; more coöperation between the home and the school; a better vision of what society should become; and a school that reflects the future and not simply the past. We need to reduce education to a science and then to recognize that it is an art. We need to know its history and then to recognize that its best history is not yet made. We need to introduce the scientific method into educational management and then to recognize that the personal element is the main thing. We need a philosophy of education, to which we come in the next chapter. And with all our planning for educational progress we need perhaps to remember with Hamlet:

> There's a divinity that shapes our ends
> Rough-hew them how we will

QUESTIONS, PROBLEMS, AND CHALLENGES

1. Read enough, in one of the texts listed in the bibliography, to make additional contrasts between past and present to illustrate progress.
2. Try to find some points in past theory and practice that you would regard as better than present theory and practice.
3. Consider the relations of education and war. Are we educating against war?
4. What is meant by progress? Has it really occurred? Has there been regress in some respects?
5. What is meant by educational progress? Has it really occurred? How would you prove your answer?
6. What changing conceptions of education have there been? Which of these do you like? Why?
7. What is the meaning of Dewey's definition of education? Do you see any weaknesses in it? Does it adequately recognize the past?
8. Show the intensive equalization of educational opportunity. Can you think of other illustrations?

9. Show the extensive equalization of educational opportunity. Is there still too much illiteracy in our country?
10. Show that educational organization has changed to meet social changes through the ages.
11. What is meant by curriculum construction? Illustrate. Show how practicality and inertia have influenced the curriculum. What are extracurricular activities?
12. Show the conflict between old and new methods. Illustrate the severity of past methods.
13. What progress has been made in school buildings? Regard for childhood? Compulsory education? Adult education? Improvement of teachers in service?
14. What future educational progress in America may be expected? What is "the coming society" to be? Is there need for planning? Why?
15. In what ways may educational progress be hastened? How have individuals contributed to it in the past? What do you think we should do about it?

SELECTED REFERENCES FOR FURTHER READING

Lewis F. Anderson, *History of Manual and Industrial School Education.* Appleton, 1926.

Charles C. Boyer, *History of Education.* Scribner, 1919.

Elmer E. Brown, *The Making of Our Middle Schools.* Longmans, Green, 1914.

John A. Clement, *Curriculum Making in Secondary Schools.* Holt, 1923.

Gabriel Compayré, *History of Pedagogy.* Heath, 1899.

Ellwood P. Cubberley, *History of Education.* Houghton Mifflin, 1920.

—— *Public Education in the United States* (Revised). Houghton Mifflin, 1934.

—— *Readings in the History of Education.* Houghton Mifflin, 1920.

Thomas Davidson, *A History of Education.* Scribner, 1921.

Charles De Garmo, *Herbart and the Herbartians* Scribner, 1935.

Edwin G. Dexter, *History of Education in the United States.* Macmillan, 1904.

Stephen P. Duggan, *A Student's Textbook in the History of Education.* Appleton, 1927

Walter C. Eels, *The Junior College.* Houghton Mifflin, 1931.

Ilse Forest, *Pre-School Education.* Macmillan, 1927.
Friedrich W. A. Froebel, *Education of Man.* Translated by W. U. Hailman. Appleton, 1892.
Frank P. Graves, *History of Education before the Middle Ages.* Macmillan, 1909.
—— *History of Education during the Middle Ages.* Macmillan, 1910.
—— *History of Education in Modern Times.* Macmillan, 1919.
Burke A. Hinsdale, *Horace Mann and the Common School Revival.* Scribner, 1898.
Herman H. Horne, "The Democratic Tradition in American Education," *School and Society,* Vol XLI (May 11, 1935), pp. 631–637.
—— and C. R. Smith, *Quintilian on Education.* New York University Bookstore, 1936.
International Handbook of Adult Education. World Association for Adult Education, 16 Russell Square, London, W. C., 1929
Isaac L. Kandel, *History of Secondary Education.* Houghton Mifflin, 1934.
—— (Ed.), *Twenty-five Years of American Education.* Macmillan, 1924.
William H. Kilpatrick, *Remaking the Curriculum.* Newson, 1936.
Edgar W. Knight, *Education in the United States.* Ginn, 1929.
Leonard V. Koos, *Junior College Movement* Ginn, 1925.
—— *Junior High School.* Harcourt, Brace, 1920.
Simon S. Laurie, *Historical Survey of Pre-Christian Education.* Longmans, Green, 1904.
J. Franklin Messenger, *An Interpretative History of Education.* Crowell, 1931.
Adolph E. Meyer, *A Visual Outline of the History of Education.* Longmans, Green, 1935.
Paul Monroe, *A Cyclopedia of Education.* Five volumes. Macmillan, 1913.
Samuel C. Parker, *A Textbook in the History of Modern Education.* Ginn, 1912.
Johann H. Pestalozzi, *Leonard and Gertrude.* Translated by Eva Channing. Heath, 1897.
Robert H. Quick, *Essays on Educational Reformers.* Appleton, 1899.
Edward H. Reisner, *Historical Foundation of Modern Education.* Macmillan, 1928.
—— *Nationalism and Education since 1789.* Macmillan, 1923.
—— *The Evolution of the Common School.* Macmillan, 1930.

James H. Robinson and James H. Breasted, *European History.* Ginn, 1914.

Jean-Jacques Rousseau, *Emile, or Education.* Translated by Barbara Foxley. Dutton, 1914.

Levi Seeley, *History of Education.* American Book Company, 1899.

Merritt M. Thompson, *An Outline of the History of Education.* Barnes and Noble, 1933.

Elmer Harrison Wilds, *The Foundations of Modern Education.* Farrar and Rinehart, 1936.

Elbert V. Wills, *The Growth of American Higher Education.* Dorrance, 1936.

Helen Wodehouse, *A Survey of the History of Education.* Edward Arnold and Company, London, 1925.

CHAPTER XVII

THE PHILOSOPHY OF EDUCATION

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In the preceding chapter, we reviewed the tremendous progress man has made, particularly in education, and expressed the conviction that, though great things are in the past, even greater things are in the future. We now come, in this final chapter, to an interpretation of the facts that have been presented. This is the work of philosophy. In philosophy we seek to think out the meaning of facts in their total relationship. This view will become clear as we proceed.

As the facts of progress have been so recently before us, we should probably begin there and ask: What is the philosophy of progress? Then we can consider, in succession, the main philosophies of education, the principles underlying American education, education for liberty, and the desirable society.

The Philosophy of Progress

What Causes Progress? It is not easy to say what causes progress. The question is a large one, and it is never easy to answer a philosophical question. For that reason, it is usually possible to give different answers to the same question, no one of which is fully convincing. All can probably agree, however, that it is the nature of most things to change with the lapse of time. But why are the changes, on the whole, "for the better"?

Some would say economic and social conditions make progress. These seem to be a part of the material or field of progress, not the determining principle of progress. Some would say the action of

the masses causes progress. In some cases it doubtless does, but these masses even in those cases require leadership. Unled masses have not caused progress, and cannot; even a herd of wild or domesticated animals has its leader. Other thinkers say that great men through their leadership cause progress, directing changes for the better or toward the better. This view has much to support it. Actually progressive movements always have leaders, whether we stress the mass action they represent or the influence great leaders themselves exert on the masses. Without the leader, no progress. Of course, with a leader there is sometimes failure, because of his weakness in commanding a following, or because of the inherent weakness in the cause he champions. Still, progress requires the leader, and so the fact of leadership is close to the answer we seek.

But is not the leader himself a conscious instrument, or voluntary agent, in carrying out a purpose written in the nature of things? Great leaders commonly regard themselves — or are commonly regarded — as "men of destiny," the curse or the blessing of God, agents of the world-spirit, voices of the eternal, and the like. These views suggest there is an immanent and universal principle in things, making for progress, which uses great men, mass action, and economic and social conditions to express itself in the course of history. "The stars in their courses fought against Sisera."

Three Philosophical Terms. We might call the views which stress economic and social conditions and mass action "naturalistic." Those which stress individual leadership may be called "pragmatic." Those which stress a universal purpose as explaining human progress are "idealistic." These are three philosophical terms referring to different fundamental attitudes toward life. Representatives of these three views would be, respectively, Karl Marx, William James, and Hegel. It makes a vast difference in our philosophy whether we give prime stress to the material conditions of life, to human leadership, or to divine purpose. These three emphases divide philosophies and philosophers, and they divide philosophies of education. Students should understand and estimate these philosophies with a view to finding their own philosophy of education and life.

Four Philosophies

There are three main philosophies of life and of education today, and a fourth is in the offing. These philosophies are: Naturalism, Pragmatism, and Idealism; the fourth is Realism.

Naturalism. According to Naturalism, as the term implies, all is nature. By the term "nature" is here meant things in space and events in time, all subject to law. Nature is held to be the sum-total of reality.

There are different forms of Naturalism. If all things are reduced to material particles, or atoms, we have the view called *Materialism.* If all things are reduced not to atoms, but to centers of force or energy, we have *Energism.* If the findings of science are held to be final, not subject to revision by philosophy, we have *Positivism.* These three forms of Naturalism may be represented by the Greek philosopher, Democritus; the German chemist, Ostwald; and the French sociologist, Auguste Comte.

Naturalism chooses science as its guide. It derives life and mind from matter. It denies the reality of the three great ideas, God, freedom, and immortality. Man's morality lacks a divine sanction. His religion is a human mistake, though it may be useful.

Our purpose here is not to argue for or against these philosophies, but to state them and let them speak for themselves. If education is interpreted in terms of Naturalism, we get the view that education is the knowledge of, and conformity to, the ways of nature. Indeed, as man has no freedom of choice in the matter, such knowledge and conformity are necessary, inevitable, and unavoidable. This philosophy of life and of education is disillusioning so far as man is concerned. He may have incorrectly thought himself to have been made a little lower than the angels; he finds instead that he has only grown a little higher than the animals. Of course, if Naturalism should convince us of its truth, we should have to accept it, however destructive it is of our fond hopes and expectations.

Realism. Because of its kinship to Naturalism, let us briefly consider next the new philosophy of Realism. Naturalism is the

parent, Realism is the child. As the characteristic emphasis of Naturalism is upon nature, so the characteristic emphasis of Realism is upon the independence of the known and knowable world, which does not depend upon any knowing mind whatsoever. This means that the existence of a thing does not depend upon its being known, whether by a finite or a super-finite mind. The thing known would be there just the same if it were not known.

Realism has a great deal more to say about knowledge than does its parent, Naturalism. In fact, there are two forms of Realism, the old and the new. They differ from each other on the nature of knowledge. The old Realism, or Naive Realism, holds that we know things just as the things are. If the sugar tastes sweet, it is sweet even when it is not tasted. The new Realism, or Critical Realism, holds that we know things only as they appear to us to be, not as they are in themselves. The sugar tastes sweet to us, but the taste of sweetness is in our gustatory nerves, not in the sugar. Whatever the divergence on the question of knowledge, the two forms of Realism agree on the central thesis that the known world is independent, in its existence, of any knowledge of it.

The leading views of Naturalism are taken over by Realism, such as: matter explains mind, but mind does not explain matter; mental action is bodily action; thought is due to the nervous system; mental action may be observed in behavior; "mind" is another term for interested behavior; and behavior is interested because the organism needs to select some object in its environment and to neglect others. (Of course this view eliminates introspective psychology and substitutes biology for it.) Similar views are held concerning morality and religion.

One interesting corollary of the view that the world and everything in it is independent of any knowledge of it is that a relation between two things is not essential to the character of each thing. For example, one object may be heavier or lighter than another object without being in any way affected thereby. This is the doctrine of the externality of relations. Realism holds this view. There is another view that the relation existing between two things is essential to the character of each; that is, if the heavier body were

not heavier, its character would in some sense be changed. It is like saying that if there were no parent, there could be no child; or, if there were no ruler, there could be no subjects. This view is called the doctrine of the internality of relations and is held by the philosophy known as Idealism. While it is essential to our understanding of Realism that we distinguish the doctrine of the externality of relations from that of the internality of relations, it is not essential for the present that we altogether understand Realism.

The significance of Realism for a theory of education becomes clear if we keep that notion of independence in mind. In a realistic philosophy of education the important thing is conformity to the real world that exists, not the transforming of the world. A realistic educational philosopher writes:

> From the field of natural science he [the scientific educator] will select liberally and teach definitely, because of the relatively high degree of certainty of the findings. . . . Education is not the creation of existents, but conformity thereto. . . . In the spirit of science and the times, the new realism sounds a more rigorous note in the intellectual and moral education of youth.[1]

Among the current leaders of the realistic movement in philosophy are A. N. Whitehead, Bertrand Russell, R. B. Perry, and George Santayana. Though Whitehead and Russell have written in a general way on educational questions,[2] it is unfortunate that no one of the leading modern realists has yet developed extensively a realistic philosophy of education. One reason for this is probably that technical philosophers, though themselves usually teachers, consider the problem of education, while important in itself, as relatively unimportant philosophically. The exceptions to this statement in our country are Boyd H. Bode, John Dewey, and W. E. Hocking, the first two being pragmatists and the last an idealist.

[1] Frederick S. Breed, "On Changes in Methods of Teaching," *School and Society*, Vol. XLI (April 27, 1935), pp. 558–563.

[2] Cf. bibliography at end of chapter.

Thus we come to Pragmatism as a philosophy of education. We should of course distinguish between a "philosophy" and a "philosophy of education." The former term covers a theory of the universe; the latter, a theory of education in relation to a theory of the universe. Thus there are philosophers who do not deal with education as a philosophical problem. There should be no educators without a philosophy.

Pragmatism and Experimentalism. The leading conflict today in philosophy in our country is that between Realism and Idealism, but in educational philosophy the conflict is that between Pragmatism (called Experimentalism in its present development at the hands of Dewey) and Idealism. In this double conflict it is Idealism against the field. Pragmatism, which is hindmost in the philosophical field, is perhaps uppermost in the educational field.

As there are different forms of Naturalism, while all agree in emphasizing the natural as the ultimate, and as there are different forms of Realism, while all agree in rejecting the dependence of the existent upon mind, so there are many different forms of Pragmatism, though all agree in emphasizing the practical for man. The very term "Pragmatism" means concern with deed, or action, or practice — and "practice" covers everything related to the control of experience.

Thus Pragmatism is rather a method of dealing with experience than a logical system of thought. The reason for this is that what is practical, efficient, satisfactory for one man may not be so for another. Hence, pragmatists agree on the method of looking to the consequences, but do not agree in their outlook on the universe.

As Realism is the child of Naturalism, so Pragmatism is the child of Idealism. While Realism accepts the general position of Naturalism that nature is all, Pragmatism rejects the general position of Idealism that nature and all things are ultimately personal or spiritual in character. Its general method, in emphasizing practicality, rejects intellectuality as giving us the knowledge of the truth. Rather, truth comes from action, not from pure thinking; by doing we come to know. The function of thinking is not to give us knowledge, but to guide action. At this point the influence

of biology, with its emphasis on the practical adjustment of the organism to its environment, upon Pragmatism is obvious. Thus, according to Pragmatism, truth is arrived at by action; the ideas which work are true. Truth would not be thinking what is so; it would be proving in experience which idea works. Truth would not be having an idea where a letter-box is; it would be in dropping your letter in the letter-box.

Pragmatism emphasizes the influence on thinking not only of action but also of emotion. We think for a practical purpose; that is the influence of action on thinking; but our purpose and our thinking are both colored, if not controlled, by emotion. We are both interested in and desirous of what we purpose.

Just as the true is expedient thinking, so the good is expedient acting. The good is action that is beneficial, efficient, pleasant, and so desirable. There is no absolute good. On this point Pragmatism is in agreement with both Naturalism and Realism, and only Idealism dissents. The position taken by Pragmatism on the nature of goodness is closely akin to what in ethical theory is called Utilitarianism.

On the question of religion, the pragmatists vary. In pragmatic theory, what works in religion or elsewhere is true. But different things in religion work for different pragmatists. Professor James at Harvard found that faith in the supernatural would justify itself by its results, but Professor Dewey at Columbia finds that faith in the potency and potentiality of the natural would alone justify itself. Professor James would not say that the results prove the existence of the supernatural world, but only that it is worth while to believe in it.

What does Pragmatism as applied to education say? Here the answer could be long, but must not be. It has been somewhat indicated in the preceding chapter in the discussion of methods. The Pragmatism of Dewey has passed into the philosophy now called by him Experimentalism or Experimental Humanism. The difference is that Pragmatism is mainly a method, the method of looking to the practical consequences to determine truth and goodness, while Experimentalism is also a philosophy, the philos-

ophy that regards everything as only experimental. The best that man can do is to experiment. The universe itself is experimenting. There are no eternal verities, no final truths, no fixed absolutes. Everything changes. The term "Humanism" means that man himself is central in the universe. There are no superhuman values because there is no supernatural world. Man himself is his own and only savior.

The most hopeful and promising trait of man is his intelligence. The function of intelligence is to control the process of change. In doing this, the intelligence of man is creative, and thus it assists in creating man's own future on the earth. There is nothing in nature that determines that future, and there is nothing about nature to determine that future. Man's hope and reliance are in his own creativity.

The great emphasis of Experimentalism in the philosophy of education is on the principle of creativity. The thing of greatest value in education is to guide children in their creative activities. Everything in education should be creative. The only limitation on creativity is that it should not be capricious. Instead of being capricious, it should be continuous. In the nature of the case, creativity cannot be routine. The teacher is the guide of the process of creativity. The school is to be only occupational. Materials and equipment are to be adequate. Living experimentally in and out of school is the best way. The present is not to be in bondage to the past, though it may learn from it. The present is not to be in subjection to the future. The present is to be lived richly; this involves using the past and is itself the best possible preparation for any future. The conformity of the naturalistic and realistic philosophy of education becomes the creativity of the experimental philosophy of education. So it comes about in our "progressive" schools that we have "creative self-expression," "creative school-control," "the creative teacher," "creative reading," etc.

John Erskine, author and president of the Juillard School of Music, is quoted [1] as having said recently that the way to study art is not by listening to lectures but by practice. He says:

[1] *New York Times*, July 28, 1936.

If you want to study painting, get some paints and canvas and try it. . . . [It is] better for students to write plays than to take courses in the drama, to dance rather than listen to lectures on the esthetics of the dance.

Along with the principle of creativity there is very strong emphasis, in Experimentalism as a philosophy of education, upon the coming economic society. In this society there will be new applications of the principle of democracy, interests will be shared within groups and between groups, there will be internationalism and interracialism, and the profit motive, or the production and distribution of foods for private financial gain, will be eliminated. The laboring class will have leisure, and the leisure class will labor. Every person will have a vocation, but his vocation will have the halo of culture about it. This culture will consist in knowing and appreciating the history and significance of one's vocation.

This new society will come about through the influence of organized intelligence working as public opinion. Children educated occupationally and socially will, as adults, gradually transform our present acquisitive and competitive society into a coöperative commonwealth. Only in the event of the evident inability of our society as a whole to reform itself by democratic means would an appeal to force by a well-organized minority be justified.

Idealism. Idealism as a philosophy began in the Western world some twenty-five centuries ago with Plato, and it is still going, perhaps growing. It has had representatives in the leading modern countries, such as Gentile and Croce in Italy; Kant, Fichte, and Hegel in Germany; Victor Cousin in France; F. H. Bradley, Bernard Bosanquet, May Sinclair, and Hilda Oakley in England; and W. T. Harris, Josiah Royce, W. E. Hocking, Mary W. Calkins, and Marie C. Swabey in America. As in the case of the other philosophies, its representatives are too many, too sensible, and too distinguished to warrant our not giving it careful consideration.

What does it stand for? The term "Idealism" suggests that this philosophy stands for the reality of ideas. This means that ideas explain other things and other things do not explain ideas; that is, ideas are themselves ultimate and the ultimate. Mind, which has

ideas, is held to be irreducible, original, explanatory, and absolute. These are great epithets. They mean that other things depend on mind, but that mind does not depend on other things. Of course the mind here meant is something universal, not the human mind alone.

Like the other philosophies, Idealism has different forms. If minds alone exist, finite minds and the Infinite mind, we have Subjective Idealism, like that of Bishop Berkeley. If the Infinite mind expresses itself in a real existent world of space and time and human institutions, we have Objective Idealism, like that of Hegel. If the Infinite mind is held to be a person, we have Personal Idealism, like that of Lotze, Ladd, and Bowne. The variant forms of Idealism all agree that mind is the one and only ultimate reality.

Some very striking positions covering our universe go along with this view. The universe itself exists for the purpose of manifesting, under finite conditions, the Infinite mind. What Naturalism and Realism would call the mechanical operations of the universe are really not so at all, but are purposeful (teleological). The category (viewpoint) of relativity is not absolute, but itself implies an absolute, just as a man's position above the earth but under the sky implies a changeless meaning of "above" and "below." The view that all things change is incorrect, for the statement itself implies that change is a constant, and the principle of change would not change but be a constant. Idealism does not deny that mechanism, relativity, and change are useful viewpoints; it only denies that they are final, or the whole story.

As regards man, Idealism both humbles him and exalts him. It humbles him in that he is finite in the presence of the Infinite; it exalts him in that his finite mind is akin to the Infinite mind. He is thus permitted to worship a real Being. Being like that free Being, he too has a measure of freedom in his choices; again, being like that eternal Being, he has the hope of immortality. Idealism as a philosophy thus conserves many of those values for which the past of the race has stood. It agrees with Aristotle, who said: "To propose to man a merely human end is to misunderstand his nature."

Like the other philosophies, Idealism, in stating its position, necessarily opposes other positions. It rejects the view that nature is all, because mind thinks nature; and the view that reality exists independently of any thought about it, for that very reality is itself the object of thought; and the view that the ideas that work are true, for they work because they are already true. Truth to Idealism is not the workability of an idea, but the harmony of idea and fact. Goodness to Idealism is not expedient action, for the act is expedient only if it is first good — that is, in harmony with the principle of right. Thus, the morality of man has a sanction in the nature, purpose, and will of the Infinite mind.

It will be noted that no one of these philosphies proves its position. If it did, it would not be philosophy, but science. The fact that philosophy exists shows that science does not answer some of our questions. Only an Infinite mind would know these answers. Philosophy arises because a finite mind is faced with an infinite situation.

What does Idealism suggest as the true interpretation of education? The nature of education is not conformity alone, because man has a measure of freedom and can create. The nature of education is not creativity alone, because the world is already created and man should conform. Thus Idealism has conformity, as do Naturalism and Realism, but it is not so rigid. Idealism has creativity, as does Pragmatism, but it is not so unlimited. Man's conformity is not inflexible, because he is free; and man's creativity is not unrestrained, because he is not the only creator. Thus the educative process, to an idealist, is a synthesis of conformity and creativity. Pupils both conform and create. There are old truths to accept and new values to create. Conformity, alone, makes man a puppet; creativity, alone, makes man a little god; conformity and creativity combined make man a finite, free being growing into conscious likeness to the Infinite. Education does reconstruct experience, but it does so with an ideal pattern of individual and social life before it. Education does bring one into conformity with reality, but it is a conscious voluntary conformity to a personal reality.

Going along with this conception of education as the cultivation of a free, conscious personality are certain related significant views. The cosmos is interested in man, who is not an orphan in his world. It takes all the time there is, both now and hereafter, to develop a man into all he is capable of becoming. The nature about us, which we study in our sciences, is a parable of thought and purpose, real but not the whole truth. Man's possibility of development is unlimited, and so his education is never completed. Education has a goal — not the vague goal of growth, but the specific goal of growth of the finite toward the Infinite. Pupils and teachers are more than vital mechanisms or behaving organisms; they are living spirits. The educated person is more than a cultivated vocationalist; he is a cultivated human being with a vocation. Education is the process of adjustment between Personal Man and Personal Reality. Education, too, has in it something of "the scent and the sound of the infinite sea."

The Criteria of Philosophy

It is very likely at this point that the student of these philosophies of education may not know "where he's at." This should not discourage him, but only stir him to go on reading, rereading, thinking, experiencing, and trying; and to be patient with himself in the process. If he is serious and means business, he will arrive at some thimbleful of truth which has the quality of all truth, even as a drop of water from the sea has the salt of the whole sea in it. He is in life and cannot escape life, and his destiny is to go on, not to give up. He will probably find himself already inclining toward one philosophy rather than another. While he cannot prove the position he takes in philosophy, he may take some comfort in the thought that another cannot disprove it. He will grow as he takes a position and defends it, but he must always keep an open mind toward any weakness in his own position and any strength in the position of another.

Here is the place to raise the question, By what criteria does one accept or reject a philosophy? The first answer is that we accept

that philosophy which has most logical convincingness. That is the best we can do. It is true that the same philosophy will have unequal convincingness for different persons. This cannot altogether be helped. The best we can do is to cultivate our intelligence, and then to follow where it leads us. Supplementary and secondary criteria are emotional inspiration and practical guidance. The philosophy which logically convinces you should also emotionally inspire you and practically guide you; but in philosophy, do not be misled into substituting emotionality and practicality for intellectuality.

Principles Underlying American Education

Theoretical Differences; Practical Agreement. Having discussed the philosophy of progress and the philosophy of education, we may turn to the vital question of the principles underlying American education. It is a striking fact that, though American philosophies may differ greatly as to the four fundamental philosophies of life and education, they differ only slightly as to the principles underlying sound Americanism and American educational principles. The only exceptions to this statement are the small company of vocal "Dialectical Materialists" who follow Karl Marx, and the small companies of foreign groups who accept the principles of dictatorship. American educators, though of different minds, live and labor together coöperatively, as do our political partisans when the heated campaign is over.

American Educational Principles. Among the principles underlying the American system of public education are the following:

(1) A self-governing democracy requires education. If government is to be by consent of the governed, if public policies are to be settled ultimately by the public through its duly elected representatives, if a people is to be free to determine its own future, the people must have enlightenment. As George Washington said in his Farewell Address: "In proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened." Hitherto, it has been deemed adequate

that education should extend through childhood. It is now clear that even educated children cannot adequately solve the problems of a great democracy in the modern complex, close-knit world. The next step is to educate all adolescents also.

(2) This education is for all the children of all the people. Otherwise, there is lacking that respect for the individual for which democracy stands.

(3) The children of the American Republic are to have equality of educational opportunity. This is the principle. It is not yet fully practiced, but it must be increasingly applied if the democracy is to approach its own ideal.

(4) These privileges of education and equality of opportunity are not to be abridged because of race, locality, or poor economic conditions. In a democracy each individual counts as one. Isolated localities are not to be neglected. The economically underprivileged are not, on this account, to be denied their due advantages.

(5) There shall be no lower schools for the lower masses and no upper schools for the upper classes, but there shall be one system of schools which all may attend, from kindergarten through the university. States may institute separate schools for different races if they so choose, but not with a view to abridging educational privileges (which is, however, the usual result).

(6) The state has the right to compel parents to send their children to school. No parent has the right to condemn his child to ignorance. The exercise of such an alleged right would menace the general welfare of the Republic, which has the right to maintain itself and to take all steps necessary to doing so.

(7) The parents have the right to select the school their child shall attend, always presupposing that such school is up to par, and that the state has the right to inspect such school and to satisfy itself as to the standards maintained in it.

(8) Private and parochial schools have the right to exist. The establishment of private schools is part of the right to engage in lawful business. The establishment of parochial schools is involved in the right to freedom of religious conscience. A parent has the right, if he so chooses, to withdraw his child from a school where

religion is not taught and to place him in a school where religion is taught. America has private and church schools which practically parallel the whole system of public education.

(9) The Federal government should aid in supporting public education, but the control of education rests with the separate states. The word "education" does not appear in our Constitution, which was framed at a time when education was conceived as the business only of the state. The government has established certain schools of national defense, like the Military Academy at West Point and the Naval Academy at Annapolis, which compete in no way with the state systems of education. However, the government, under the "general welfare" clause of the Constitution, renders aid to public education in those states which coöperate with it.

(10) Teachers have the same rights under the Constitution as other citizens; that is, freedom of speech and of peaceful assembly. Freedom of speech is limited in their case, as in all cases, by good taste and the laws against libel and sedition. Whether teachers as a class should be required to take a special oath to support the state and national constitutions is a moot question at present, concerning which our states are almost equally divided.

Education for Liberty

The Concept of Liberty. The principles underlying American education are designed to educate for liberty. By liberty is meant self-control, self-government, and self-determination under self-imposed law. Liberty is always restrained by law; without law, liberty is chaos. In a democratic society the restraining law is self-legislated. Neither one person nor a few persons decide what all shall do, as in dictatorships, but all decide, and the majority rules.

Liberty in the Schools. To educate for liberty in the school means to practice liberty in the school, not just talk about it. The end is continuous with the means; if liberty is the end, liberty must also be the means. We cannot have autocratic schools and democratic pupils at the same time.

In order to educate for liberty in the schools, there needs to be a measure of self-government under guidance in the school. Pupils are to manage their own affairs as far as practicable. The school is to be their school as well as the school of teachers and community. To each one, responsibility is to be given according to his ability to carry it. There is no liberty without responsibility, and there is no responsibility without authority. [1]

Dictatorships

We live in the age following the World War, in which democracy is being challenged by the opposing principle of dictatorship. That war was waged, it was said by President Woodrow Wilson, "to make the world safe for democracy." It was a good phrase, but democracy comes rather by the methods of peace than of war. Since that war, the world has been unsafe for democracy. Dictatorships or absolute monarchies exist in most of the world, and only France, the Netherlands, Scandinavia, Great Britain, and the United States remain democratic. This situation, like our railway schedules, is "subject to change without notice." The principles underlying different dictatorships are very similar. The state is the ultimate authority. If it allows independence to another institution, like the church, it is "authoritarian" and "corporate," but not "totalitarian"; if it subjects all other institutions to itself, it is "totalitarian." Dictatorships are alike in relying on physical force to advance their aims; in rejecting the democratic principle of "government by consent of the governed"; in allowing only one major party to exist; and in having one person or a small group of persons whose will for the people is final. The commands of the dictator are law, and no court decisions can set them aside. The term "leader" used by dictatorships is misleading. A real leader does not dictate; he does not compel other men, by force and fear, to do his bidding; he does not tell them what they must think, under penalty for disagreeing. A true leader is one who inspires a voluntary following, without coercion or intimidation.

[1] Cf. Paul Pigors, *Leadership or Domination*. Houghton Mifflin, 1936.

Education under Dictatorships. Education is the same in principle under all dictatorships: it is indoctrination and propaganda. The content of the indoctrination varies with the system in operation, but the form is the same. Under indoctrination, opinions are inculcated as facts, under penalty for non-acceptance. Under propaganda, mass psychology is used to influence behavior; the game is played with weighted dice. In Russia private schools are not allowed to exist. In all these countries the radio may be used for political purposes only by the dominant party.

Education in a Democracy. By contrast, education in a democracy is, as a matter of principle, neither indoctrination nor propaganda. If these exist, they are a travesty on education. Instead, facts, known to be such, are taught as facts; and opinions, known to be such, are taught as opinions, and so are not binding; the individual is left free to accept or reject them. The game of winning support to opinions is played with unloaded dice. Different parties may have their spokesmen and be heard. It is permissible in a free country to advocate the abolition of freedom Radical minority parties have the right to exist and to be heard. The following of political parties is determined by choice, not by propaganda. If one set of propaganda exists, another set of propaganda offsets it, so that finally there is choice.

Controversial Issues. This means that teachers may and should study with their classes, in suitable courses and contexts, the controversial issues of the day, like socialism, capitalism, trade unionism, communism, fascism, and racialism. However, teachers should not engage in subversive indoctrination against the government of the United States of America. That would not be democratic or democracy in education. Pupils should be guided to all the significant facts and then aided in expressing and defining their own opinions. Democracy thrives in freedom of discussion. It is constantly tempted to imitate the methods of dictatorships and suppress discussion. It should not yield to the temptation, but should stand squarely for the right of the opposition to be heard. We fear tyranny; there is no need to imitate its methods. Loyalty to the Constitution includes supporting free speech.

The Desirable Society

What Do We Want? Among the proper and important questions to raise is this: What kind of society do we want our democracy to become? We had our Revolution in 1776. The people rule. We can become different if we will. We shall become different in many ways. What should we become? To remain static is impossible. Our decision on this question is critical, both for our own future and for that of the world.

Among the things that afflict us and the world today are war, selfish nationalism, race prejudice, human exploitation. Against these things we should educate, by working constructively for peace, for coöperative nationalisms, for justice to the different races of earth, and for the economic independence of all. This is a millenial program and it may take a thousand years to realize it.

Colonel Lindbergh Quoted. Some of the bravest and best words against war spoken in our generation came from Colonel Charles A. Lindbergh, speaking in Berlin before the German Air Ministry at Fliers House, July 23, 1936. He said:

> As I travel in Europe I am more than ever impressed with the seriousness of the situation which confronts us. When I see that within a day or two damage can be done which no time can ever replace, I begin to realize we must look for a new type of security — security which is dynamic, not static; security which rests in intelligence, not in forts.[1]

Education against Evils. Surely "intelligence," and the disposition to use it, should be one of the products of a proper education. The history of other countries can be so taught as to develop understanding, sympathy, and the willingness to coöperate. The courses in civics, democracy, social studies, and psychology can be so handled as to show the artificial basis of race prejudice. The problems of economics, of production and distribution, can in time be so understood that the rich and resourceful earth can supply, through human labor, enough and to spare for all without one man's profit being another man's loss.

[1] *New York Times*, July 24, 1936.

Dr. Conklin Quoted. Dr. Edwin G. Conklin, one of the world's most eminent biologists, pointed out recently in a public address "some of the appalling contrasts between scientific progress and social stagnation." He is reported as saying:

> We have before us today the strange paradoxes of overproduction and underconsumption, improved transportation and unimproved distribution, vast property and appalling poverty, multiplied occupations and unparalleled unemployment, triumphant medicine and widespread disease, prolonged life and useless and dependent old age, scientific internationalism and economic nationalism, greater armaments and less security, larger social units and less social unity, elimination of the unfit and survival of the fit and protection of the unfit and elimination of the fit. . . . The ultimate aim of all education, whether of children or of nations, should be to fit for freedom and cooperation.[1]

Such problems as these belong in our courses of science and sociology in our colleges and graduate schools. Educational institutions alone cannot solve such questions, but they can educate the leaders and the followers who can solve them.

What Is Education?

We have now considered the philosophy of progress, the main philosophies of education, and the principles underlying democratic education in America and undemocratic forms of education in other countries, education for liberty, and the desirable society. In all these educations, what is education? It is the perfecting of humanity in accord with some given or chosen pattern. The patterns vary, the methods of procedure vary, the aim is the same: to assist in the making of man. If we had the right pattern and if we were willing to follow it, the problem of educating would be simplified. Those are two very large "ifs." Utopias are written, constitutions are drawn, revolutions are enacted, and the Sermon on the Mount spoken, to tell us what the pattern should be. Plato said the pattern was laid up in heaven, and proposed the education of philosophers who would first envisage the pattern and then rule

[1] *New York Times*, June 20, 1936.

the Republic. Meantime, mankind struggles on, usually empirically, sometimes experimentally, and on the whole upward. To this thought of the other philosophies an idealist would add, with Tennyson,

> Yet I doubt not through the ages one increasing purpose runs
> And the thoughts of man are widened with the process of the suns.

QUESTIONS, PROBLEMS, AND CHALLENGES

1. What are the four proposed causes of progress? Which do you prefer? Why?
2. What does Naturalism as a philosophy stand for?
3. What does a Naturalistic philosophy of education stand for? Estimate Naturalism.
4. What does Realism as a philosophy stand for?
5. What does Realism as a philosophy of education stand for? Estimate Realism.
6. What does Pragmatism stand for?
7. What does Experimentalism as a philosophy of education stand for? Estimate Pragmatism and Experimentalism.
8. What does Idealism stand for?
9. What does Idealism as a philosophy of education stand for? Estimate Idealism.
10. Name the ten principles said to underlie American education. Could you add to this list? Take from it?
11. Contrast education in a democracy and under dictatorships. Has our society some resemblances to dictatorship?
12. What is liberty? How shall we educate for it? Are political liberty and economic liberty compatible?
13. What evils in society should education help to eliminate? For what type of society should America seek to build?
14. What philosophy of education are you inclined to accept? Why?

SELECTED REFERENCES FOR FURTHER READING

Thomas Alexander and Beryl Parker, *The New Education in the German Republic.* John Day, 1929.

William C. Bagley, *Education, Crime, and Social Progress.* Macmillan, 1932.

Clifford Barrett, *Philosophy*. Macmillan, 1935.
Boyd H. Bode, *Modern Educational Theories*. Macmillan, 1927.
Boris B. Bogoslovsky, *The Ideal School*. Macmillan, 1936.
Frederick S. Breed, "On Changes in Methods of Teaching," *School and Society*, Vol. XLI (Apr. 27, 1935), pp. 558–563.
Nicholas M. Butler, *The Meaning of Education* (Revised). Macmillan, 1915.
John L. Childs, *Education and the Philosophy of Experimentalism*. Century, 1931.
Ellwood P. Cubberley, *Public Education in the United States* (Revised). Houghton Mifflin, 1934.
—— *Readings in Public Education in the United States*. Houghton Mifflin, 1934.
Michael J. Demiashkevich, *An Introduction to the Philosophy of Education*. American Book Company, 1935
John Dewey, *Democracy and Education*. Macmillan, 1916
—— "Why I Am Not a Communist," *Modern Monthly*, Vol. VIII (April, 1934), pp. 135–137.
Isaac Doughton, *Modern Public Education*. Appleton-Century, 1935.
Ralph Waldo Emerson, *Representative Men*. Any edition.
William E. Hocking, *Types of Philosophy* Scribner, 1929
Herman H. Horne, *The Democratic Philosophy of Education*. Macmillan, 1932.
William James, "Great Men and Their Environment," in *The Will to Believe*. Longmans, Green, 1897.
Isaac L Kandel, *Comparative Education*. Houghton Mifflin, 1933.
—— "The Philosophy Underlying the System of Education in the United States," in *Educational Yearbook, 1929*. Bureau of Publications, Teachers College, Columbia University, 1930.
—— (Ed.), *Twenty-five Years of American Education*. Macmillan, 1924.
William H. Kilpatrick, *Foundations of Method*. Macmillan, 1935
—— "High Marxism Defined and Rejected," *Social Frontier*, Vol. II (June, 1936), pp. 272–274.
Edgar W. Knight, *Education in the United States*. Ginn, 1929.
Quincy A. Kuehner, *A Philosophy of Education*. Prentice-Hall, 1935.
Rupert C. Lodge, *Philosophy of Education*. Harper, 1937.
Jacques Maritain, *Freedom in the Modern World*. Scribner, 1936.
Hughes Mearns, *Creative Power*. Doubleday, Doran, 1929.
Paul Pigors, *Leadership or Domination*. Houghton Mifflin, 1936.

Joseph Ratner, *The Philosophy of John Dewey.* Holt, 1928.
Woodbridge Riley, *American Thought from Puritanism to Pragmatism.* Holt, 1913.
Arthur K. Rogers, *Student's History of Philosophy.* Macmillan, 1907.
Frederick W. Roman, *The New Education in Europe* (Second Edition). Dutton, 1930.
Robert R. Rusk, *The Philosophical Bases of Education.* University of London Press, London, 1928.
Bertrand Russell, *Education and the Modern World.* Norton, 1932.
William F. Russell, *Liberty vs. Equality.* Macmillan, 1936.
Peter Sandiford (Ed.), *Comparative Education.* J. M. Dent and Sons, Ltd., London, 1926.
Rexford G. Tugwell and Leon H. Keyserling, *Redirecting Education.* Columbia University Press, 1935.
Alfred Weber and Ralph B. Perry, *History of Philosophy.* Scribner, 1925.
Alfred N. Whitehead, *The Aims of Education* Macmillan, 1929.
Norman Woelfel, *Molders of the American Mind.* Columbia University Press, 1933.

APPENDIX

SOME ELEMENTARY STATISTICAL CONCEPTS

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The purpose of the ensuing discussion is to introduce the student to some of the elementary statistical concepts as they apply to education and psychology. So extensively are statistical procedures used, in interpreting findings in research in these fields, that the student or teacher is unable to read intelligently the books and periodicals which recount the results unless he has some knowledge of such procedures.

Statistics are used in all the social sciences in order to give these studies a status as sciences. Method, rather than subject matter is the key to science, and the exactness of a science is a function of the exactness of its method. The degree of exactness attained by any science depends upon the accuracy of its measuring instruments and upon the effectiveness of its controls. The physical sciences have attained the highest degree of exactness yet known.

Three reasons may be listed for the lack of exactness in the social sciences: inadequate knowledge of what all of the variables are, limitations in the use of effective controls, and inaccuracies of instruments for measuring human behavior. It is to overcome these errors, in part, that the social scientist resorts to statistics. The performance of an individual upon a constant task, under identical environmental conditions, at the same time of day, with instructions, conditions of rest, sleep, and all other known factors constant, will vary from day to day. This is an admission that there are some uncontrolled factors influencing his behavior. Consequently, we must use statistics in appraising his performance.

The following statistical procedures are discussed in this chapter: the arrangement of data, central tendency, variability, percentile

rank, correlation, and probable error. A little patience and average ability are the only prerequisites to understanding them.

The Arrangement of Data

The processes of formal education require the collection and organization of a vast quantity of material. The teacher in practice is continually called upon to collect, interpret, and display results in the form of academic grades, intelligence and achievement test scores, surveys, and research findings.

Documenting Reports. Term papers, theses, articles, and book manuscripts should be typed double-space. All should be carefully documented so that the reader may know the sources of the material reported. Quotation marks should be used around all brief direct quotations; with long quotations the quotation marks are omitted and the quotation is typed single-space as a separate paragraph. If the source of the quotation is a book, it is customary to identify it by giving the name of the author, the exact title of the book, the page on which the quotation appears, the name of the publisher, and the date of publication. If the source is an article, the author's name, the exact title of the article, the name of the periodical in which it was printed, with the volume number and date of issue, and the pages on which the article is found, should be cited.

Credit should be given in similar manner for matter quoted indirectly and for figures and tables that are reproduced. No credit is necessary for the use of factual or theoretical data that are matters of common knowledge. Footnotes may be indicated in a manuscript by typing them single-space and drawing a line across the page just above the first line of the note.

Tables and Figures. Tables and figures should invariably be numbered and given a label or title. Roman numerals are customarily used in numbering tables, and Arabic numerals in numbering figures. The number and title of a table go at the top; those of a figure, at the bottom. The axes of figures (graphs) should be labeled so that the reader may know exactly what the units of measurement are. These conventions are illustrated in Table X and Figure 10 of this volume (pp. 467 and 468).

Abstracting Reports. If original research is being reported, the purpose or object of the study should be stated in the abstract. Results of other investigations bearing upon the same problem, if any are given, should be listed. The significance of the problem should also be noted. Since method is the foundation of science, the procedure employed should be carefully recorded. Results are

TABLE X

FREQUENCY TABLE SHOWING THE DISTRIBUTION OF INTELLIGENCE

ci	*t*	*f*	*fc*
199–204	||||	4	100
193–198	|||	3	96
187–192	𝍸 𝍸	10	93
181–186	𝍸 𝍸 |	11	83
175–180	𝍸 𝍸 ||||	14	72
169–174	𝍸 𝍸 |	11	58
163–168	𝍸 𝍸	10	47
157–162	𝍸 ||||	9	37
151–156	𝍸 |	6	28
145–150	𝍸 ||	7	22
139–144	|||	3	15
133–138	𝍸	5	12
127–132	||	2	7
121–126	|||	3	5
115–120	||	2	2
		$n = 100$	

ci = class interval
t = tabulation
f = frequency
fc = cumulative frequency

often copious, consisting of many tables and graphs. These can usually be greatly condensed. The student should record as much of the material as he thinks will be useful for immediate or future purposes.

The Frequency Table. Unarrayed data, such as test scores, are difficult to interpret, especially if the number of cases is large. Consider the difficulty of interpreting a score of 168 when this score is one of a hundred other scores. Such a task becomes relatively simple, however, when the scores are arranged in a frequency table,

as in Table X. It is possible to see at a glance from column *fc* that 168 is just below average. Any other score in the distribution may be evaluated with equal readiness. For example, 130 is in the lowest 10 per cent; and 198 is in the highest 10 per cent.

In the construction of a frequency table, the first step is to determine the size of the class intervals. Statisticians recommend from ten to twelve intervals as the minimum, to eighteen to twenty as the maximum. Thus, the size of the interval will depend upon the range of scores. If the range is sixty score points, an interval of the four points would give fifteen intervals, and of five would

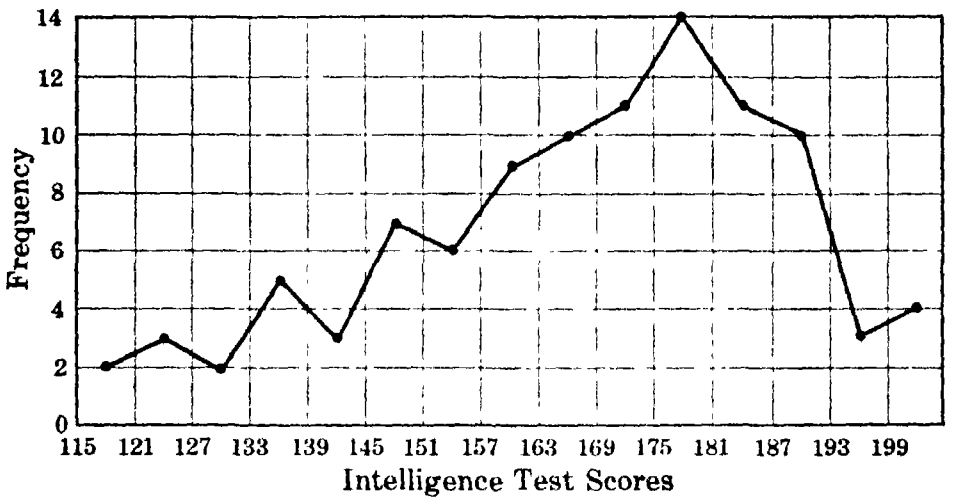


FIG. 10. FREQUENCY POLYGON

give twelve intervals. The scores are tabulated in column *t*. Column *f* is merely the sum (frequency) of the tabulations, and column *fc* is the cumulative frequencies added from the bottom.

The Frequency Polygon. It is often convenient to display data such as those in Table X in a frequency polygon or some other graphical method. Figure 10 is a frequency polygon depicting the hundred intelligence test scores given in Table X.

The Block Diagram. The block diagram is especially convenient when the number of cases is small, as in a class of not more than twenty or thirty pupils. It has the added advantage of making it possible to designate, by number, the particular pupils who achieve the various scores. This procedure is illustrated in the following

example based upon the performance of a class of twenty-five pupils on a language test:

Pupil No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Scores	12	18	14	15	21	24	16	17	18	22	18	14	22
Pupil No.	14	15	16	17	18	19	20	21	22	23	24	25	
Scores	18	20	21	18	19	16	19	17	20	16	19	23	

Since the range of scores is from 12 to 24, making thirteen units, we may lay off the base line in thirteen score units, and since the

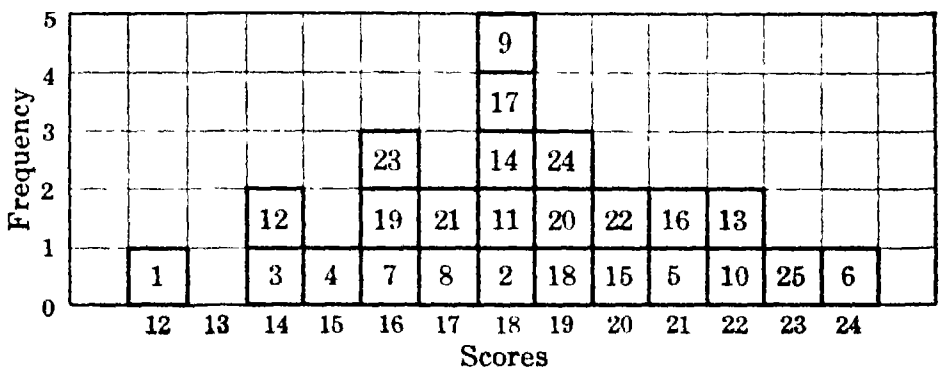


FIG. 11. BLOCK DIAGRAM

greatest frequency with which any score is made is 5, the vertical axis may be laid off in five frequency units (see Figure 11).

Tables and graphs have value only in displaying and evaluating data. They have no intrinsic value. They do not make data more valuable or convincing, but they are a great convenience. The ability to construct and to interpret tables and graphs is almost indispensable to the teacher and to the teacher in training.

CENTRAL TENDENCY

Frequency tables and graphs reveal a great deal about data. They show, in a rough way, the distribution of scores or other measures of ability and their central tendency. From such a representation of data it is possible to make comparisons of scores. However, more exact measures of central tendency and distribution are often desired.

The Arithmetic Mean. The arithmetic mean, or simply the mean, is one of the measures of central tendency in common use. It is obtained by the simple formula $M = \Sigma s \div n$, in which M equals mean, Σ, the sum, s, the scores, and n, the number of cases. That is to say, the mean is obtained by dividing the sum of the scores by the number.

The Median. The median is another measure of central tendency or average. The median is the middle of the scores. The numerical value of the median is not always identical with that of the mean. If the number of cases is small or if the scores are peculiarly distributed, the mean and the median are likely to be different. The mean of the intelligence test scores given in Table X is 167.38; the median is 170.64. This difference is due to the fact that the range of the low scores extends farther away from the mean than that of the high scores. This principle is illustrated in the following distribution of scores:

(*a*)	10	15	20	21	21	**22**	23	24	24	25	26
(*b*)	18	20	20	21	21	**22**	23	24	24	25	26

The median is the same in both distributions, 22. The mean of the first distribution is 21; that of the second distribution is 22.18. The median is unaffected by the low scores in the first distribution. For this reason the median is regarded as the more faithful measure of central tendency for most purposes.

Calculation of the Median. Since the method of calculating the median is essentially the same as that used in the calculation of quartiles and percentiles, discussed in a later portion of this chapter, it seems desirable to describe it here. For this purpose Table X is reproduced, in part, in Table XI.

In calculating the median from a frequency table, we find the class interval which contains one-half the cases — in this case the interval is 169–174. Then we find the interval just below this critical interval and note the cumulative frequency (*fc*) of this interval — 47, in this case. By subtracting the value of *fc*, 47, from one-half the cases, 50, we determine how many scores short of the median is the top of the interval 163–168. We find this to

TABLE XI

CALCULATION OF MEDIAN FROM FREQUENCY TABLE

ci	*f*	*fc*
199–204	4	100
193–198	3	96
187–192	10	93
181–186	11	83
175–180	14	72
169–174	11	58
163–168	10	47
157–162	9	37
151–156	6	28
145–150	7	22
139–144	3	15
133–138	5	12
127–132	2	7
121–126	3	5
115–120	2	2
	$n = 100$	

$$Md = l + \frac{\frac{1}{2} \cdot n - fc \cdot ci}{f}$$

$\frac{1}{2} \cdot 100 = 50$

$50 - 47 = 3$

$3 \cdot 6 \div 11 = 1.64$

$Md = 169 + 1\ 64$

$= 170\ 64$

Md = median
n = no. of cases
fc = cumulative frequency of interval adjacent to the one containing $\frac{1}{2}$ of cases
ci = class interval
f = frequency of interval containing $\frac{1}{2}$ of cases
l = lower limit of interval containing $\frac{1}{2}$ of cases

be 3. Since the interval 169–174 contains eleven scores, we take $\frac{3}{11}$ of 6, the size of the interval, and add the product, 1.64, to the bottom of the interval in order to obtain the median; thus, 1.64 + 169 = 170.64, the median.

VARIABILITY

A frequency table or a frequency polygon enables the reader to comprehend the nature of a distribution, such as teachers' marks, pupil achievement, teachers' salaries, and the like. Numerical expressions of variability are also in common use. The latter are highly accurate — a factor of utmost importance in research work — and they are more conveniently expressed. The measures of variability commonly referred to in books and articles are range, mean deviation, quartile range (or semi-interquartile range), and standard deviation.

Range. Range is simply the difference between the highest and lowest scores. Thus, we may say that the scores on a given test range from 41 to 85 — a range of 44 points.

Quartile Range. Quartile range is the range between the twenty-fifth percentile and the seventy-fifth percentile, the lower and upper fourths of the distribution. The advantage which this measure has over range is that it is not so likely to be affected by extreme cases. If we say that the range of one hundred scores is from 41 to 85 and if there are no scores between 41 and 60, we mislead the reader. The quartile range is free from this kind of error. The semi-interquartile range is one-half of the quartile range.

A formula for the calculation of quartiles is Q_1 (the first quartile) $= 1 + \frac{\frac{1}{4} \cdot n - fc \cdot ci}{f}$. The second quartile ($Q_2$) is the median. Q_3 is calculated by the same formula except that n is multiplied by $\frac{3}{4}$ instead of $\frac{1}{4}$. The student may note that this formula is the same as that given for the calculation of the median with the exception just noted; that is, the number of cases is multiplied by $\frac{1}{4}$ or $\frac{3}{4}$ instead of $\frac{1}{2}$.[1]

Mean Deviation. Mean deviation is the average of the deviations from the mean without regard to the signs. The principle may be illustrated in the following example, in which s = the scores and d = the deviations:

$s =$	40	41	42	43	44	45	46	47	48	49	50
$d =$	5	4	3	2	1	0	1	2	3	4	5

Thus, mean = 45 and mean deviation = 2.72 (mean deviation $= \Sigma d \div n$, in which Σ = the sum, d = deviation, and n = number).

Standard Deviation. Probably the measure of variability most widely used in experimental research is standard deviation. In computing standard deviation, the deviations are squared before being summed; the sum is divided by the number of cases; and the square root is extracted from the quotient. The student is

[1] It would be good practice for the student to find Q_1 and Q_3 of the distribution given in Table XI and to determine the quartile range.

referred to a textbook in statistics for a description of the methods of calculating standard deviation from a frequency table.

Percentile Rank

Percentile rank differs from ordinary rank in that it is independent of the number of cases in the distribution in question. Ordinary rank is meaningless unless the number of cases is known. A rank of 45 (from the bottom) in a group of 50 is high, in a group of 100 it is about average, in a group of 500 it is low. A percentile rank of 45 always has the same meaning: namely, that the student achieving it equals or excels 45 per cent of the group. It applies equally well to all kinds of quantitive measures — school marks, achievement test scores, intelligence test scores, stature, and teachers' salaries.

The Percentile Graph. For most purposes it is unnecessary to determine the scores which correspond to each percentile. It is ordinarily sufficient to find the score values of every fifth or tenth percentile. From these percentiles a percentile graph may be plotted and the remainder of the percentiles read from the graph. Grade norms, age norms, mental age and IQ norms are frequently given in the form of percentile graphs, as in Figure 12, which is a percentile graph of scores on the Schrammel-Brannan Revision of Army Alpha Examination. Almost any textbook in statistics shows the method of plotting a percentile graph.

Through the use of the percentile graph it is possible to ascertain quickly and accurately the percentile rank corresponding to any test score in the distribution. To find the percentile rank of the student who made a score of 172, we locate 172 on the vertical axis and then find the point at which a horizontal line drawn therefrom intersects the curve. By following a vertical line drawn from this point to the intersection of the horizontal axis (percentile scale), we may ascertain the percentile rank of this pupil. Thus, we find that the percentile rank of a score of 172 is 54. In a similar way the percentile rank of any other score may be determined.

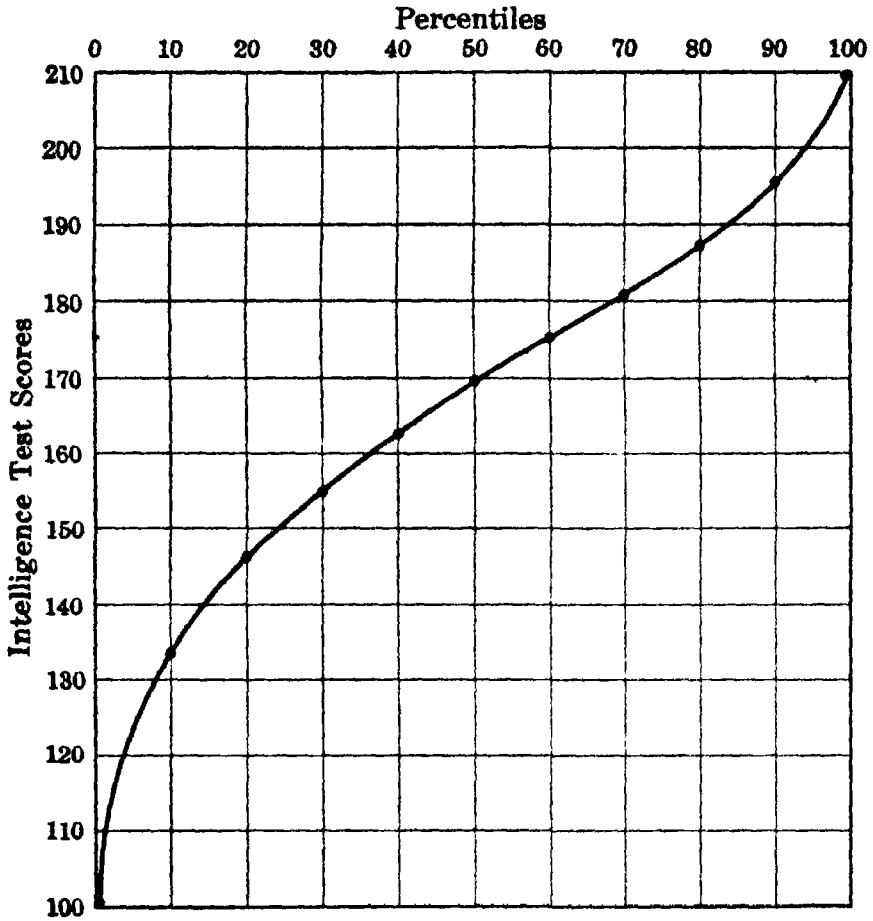


FIG. 12. PERCENTILE GRAPH

CORRELATION

In its general application, correlation merely means "relation with." Used in a statistical sense, correlation refers to the degree of relationship which is expressed in a correlation coefficient. In experimental research it is not sufficient to know merely that two measures are correlated; we must know how closely they are correlated; that is to say, we must know what the coefficient of correlation between them is.

Positive and Negalive Correlations. Correlations may be positive or negative — positive, if the scores of one measure increase as those of the other measure increase; negative, if the scores of one measure increase as those of the other measure decrease. Thus,

correlation coefficients vary in kind and in degree or magnitude. They vary from + 1.00 to − 1.00, zero representing no relationship at all. A perfect positive relationship is represented by + 1.00, a perfect negative relationship by − 1.00.

Correlation in the Social Sciences. Perfect correlations are never obtained in the social sciences except by accident. Perfect correlations require perfect measuring instruments and perfect control of extraneous variables. Neither of these attainments has been realized in the social sciences. Among the highest correlations found in the social sciences are those obtained between two tests. These range typically from .90 to .95. Correlations between intelligence test scores and academic grades usually range from .40 to .60, the average being about .50. Intelligence tests contain almost a 10 per cent error. Academic grades probably contain a much greater error. No measure can correlate, except by accident, with any other measure to an extent which is greater than its accuracy.

The comparatively low correlations obtained between intelligence test scores and academic grades is due, in part, to inaccuracies of both measures. Another important consideration is the fact that academic grades depend upon several factors in addition to intelligence, such as studiousness, freedom from worry and illness, excellence of previous training, and absence of distracting influences.

As a further example of correlation in the social sciences may be cited the fact that correlation coefficients of about .50 are obtained between the intelligence test scores of siblings (children born to the same parents). The correlation between the intelligence test scores of fraternal twins is about .65, and that between such scores of identical twins is about .88.

Correlation and Prediction. When two measures are highly correlated, it is possible to predict, with a high degree of accuracy, the magnitude of one measure when that of the other measure is known. If a child's IQ, as determined by one intelligence test, is known, it is possible to predict with considerable success what it will be if determined by a second test. This is possible because

intelligence tests are highly correlated with each other. It is possible to predict academic achievement from a knowledge of IQ, or vice versa, with moderate success only, because the two variables are only moderately correlated. Color of hair cannot be predicted from IQ, because the two are not correlated.

Correlation and Causation. Causation is one of the most difficult problems in the social sciences. Correlation does not imply causal relationship in the sense that one variable causes the other, unless all other possible causes have been excluded. In any instance of correlation between two variables *a* and *b*, there are three possible interpretations or ways of accounting for the relationship: first, *a* may cause *b*; second, *b* may cause *a*; third, *a* and *b* may have a common cause.

There is a low negative correlation between the incidence of smoking on the part of high school boys and their academic grades. This correlation coefficient does not *prove* that smoking itself causes low grades. Low grades may be conducive to smoking, smoking may be conducive to low grades, or both may have a common cause in the social background of the pupils.

Spurious Correlations. A correlation which is dependent upon some extraneous or outside factor is said to be spurious. For example, there is a high correlation between the MA's of grade school children and the number of permanent teeth they have. This correlation is dependent almost entirely upon an uncontrolled factor; namely, chronological age. If chronological age is kept constant by the selection of children of the same age, the correlation between MA and the number of permanent teeth approaches zero.

Educational Uses of Correlation. The student of education and psychology continually encounters correlation coefficients in his reading. A few illustrations, in addition to those cited above, are given. The correlation between first-semester and second-semester grades of college students is about .65. The correlation between two measures of height of school children taken as much as four or five years apart is about .80. We employ the correlation technique to determine the constancy of the IQ. Variations in IQ

are not great even over a period of several years, as is shown by correlations of .85 to .90 between the two testings.

The method of correlation is used to determine the reliability of tests. As is stated above, the reliability coefficients of good tests range typically from .90 to .95 when two sets of scores on the same test are correlated. The validity of tests is determined by correlating tests with their criteria; that is, by correlating test scores with teachers' estimates, school grades, grade placement, and chronological age. Validity coefficients range typically from about .50 to .75. The correlation technique is used in education as a means of ascertaining the social, cultural, or environmental factors which are related to intelligence and academic achievement.

Probable Error. The student of education will continually encounter expressions of probable error (PE). The most common of these are PE of a mean, PE of a correlation coefficient, and PE of a difference. The wide use of PE in educational and psychological research is necessitated by the ever present phenomenon of individual differences. The research worker is continually dealing with samplings. If he wishes to compare the IQ's of college freshmen with those of college seniors, he does not compare all college freshmen in America with all seniors. He compares a few hundred members of these two classes selected as samples. The probable error is, strictly speaking, an error of the sampling. It has nothing to do with errors made in calculation. Probable error is rarely used in the physical sciences because the physical scientist is ordinarily able to control the conditions which the social scientist encounters under the name of individual differences.

Probable error is usually indicated by a plus and minus sign ($\pm$). Thus, we say "mean = 70 $\pm$ 1.0." This means the chances are 50 in 100 that the true mean lies within 69 and 71, one PE; that the chances are 82 in 100 that it lies within 68 and 72, two PE; that the chances are 96 in 100 that it lies within three PE — that is, 67 and 73; and that the chances are 99+ in 100 that it lies within 66 and 74, or four PE. Thus, in this instance we may say that it is *statistically* certain that the obtained mean lies within four PE of the true mean.

The formula for the PE of a mean is

$$PE = \frac{.6745\ \sigma\ \text{(standard deviation)}}{\sqrt{n}}.$$

There are only two variables in the formula, the scatter or variability (σ) and the number of cases. When the number of cases is small, the PE will naturally be large and the obtained mean will not be very reliable. Also, if the σ is large — that is, when the scores are widely scattered — the PE will be large and the mean will be unreliable.

The PE of a correlation coefficient has the same interpretation. If a coefficient is at least four times its PE, we may say that statistically the chances are practically 100 in 100 that there is a true correlation which is greater than zero. The significance of a correlation coefficient depends not only upon its magnitude, but also upon the magnitude of the PE. For example $r = .50 \pm .05$ is much more reliable than $r = .65 \pm .20$. The first coefficient is 10 times its PE; the second is 3.25 times its PE.[1]

The PE of a difference is a measure of the statistical significance of differences between two measures. If a difference is at least four times the PE of the difference, it is regarded as a statistically significant difference; that is to say, there are practically 100 chances in 100 that there is a difference greater than chance.

SELECTED REFERENCES FOR FURTHER READING

Dennis H. Cooke, *Minimum Essentials of Statistics*. Macmillan, 1936.

Henry E. Garrett, *Statistics in Psychology and Education*. Longmans, Green, 1926.

Charles W. Odell, *Statistical Method in Education*. Appleton-Century, 1935.

Louis L. Thurstone, *The Fundamentals of Statistics*. Macmillan, 1925.

Ernest W. Tiegs and Claude C. Crawford, *Statistics for Teachers*. Houghton Mifflin, 1930.

[1] r = correlation coefficient.

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