PROGRESSIVE EDUCATION ASSOCIATION PUBLICATIONS
Commission on the Relation of School and College

ADVENTURE IN AMERICAN EDUCATION

Volume I

The Story of the Eight-Year Study

ADVENTURE IN AMERICAN EDUCATION

Volume I

The Story of the Eight-Year Study

by

Wilford M. Aikin

Volume II

Exploring the Curriculum

The Work of the Thirty Schools
from the Viewpoint of Curriculum Consultants

by

H. H. Giles, S. P. McCutchen, and A. N. Zechiel

Volume III

Appraising and Recording Student Progress

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in the Thirty Schools

by

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and the Evaluation Staff

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Each School Writes of Its Participation
in the Eight-Year Study

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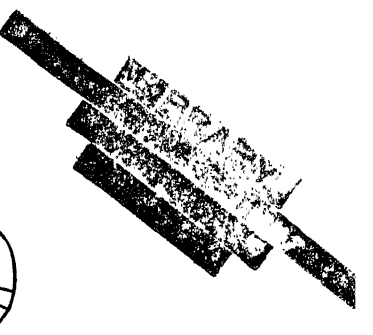
ADVENTURE IN AMERICAN EDUCATION VOLUME I

THE STORY of the EIGHT-YEAR STUDY

With Conclusions and Recommendations

WILFORD M. AIKIN



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THE STORY OF THE EIGHT-YEAR STUDY

A-R

The Progressive Education Association
the Commission and the Schools
gratefully acknowledge their indebtedness
to
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and to the
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for the funds which made this Study possible

During the first year the Commission had no funds except $800 contributed in equal amounts by the Francis W. Parker, John Burroughs, Lincoln, and Tower Hill Schools. From the beginning of 1932, generous subventions from Carnegie Corporation of New York supported the work, except that in evaluation, through 1936. Much larger grants from the General Education Board financed the work of the Evaluation Staff, the Curriculum Associates and, since 1936, all the activities of the Commission.

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[1] In addition to those who were continuing committee members, at least 400 others from the schools and other institutions cooperated.

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Baldwin School, Bryn Mawr, Pa.	(Miss Elizabeth Johnson) Miss Rosamond Cross
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Bronxville High School, Bronxville, N. Y.	Miss Edith M. Penney
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Radnor High School, Wayne, Pa.	Sydney V. Rowland

[1] Many changes in administration occurred in the schools during the period of the Study. Such cases are indicated by names in parentheses given in chronological order of service.

* Deceased

Commission on the Relation of School and College

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Chapter I

THE EIGHT-YEAR STUDY IS LAUNCHED

In April, 1930, two hundred men and women were assembled in the nation's capital to consider ways by which the secondary schools of the United States might better serve all our young people. The Progressive Education Association, which had stimulated great change in elementary education, was asking in this annual convention, How can the high school improve its service to American Youth?

In that group were gray-haired principals and teachers who had worked long years with boys and girls, young teachers recently out of college, eager to learn how to help their students more effectively, parents deeply concerned that their sons and daughters should have experiences in high school that would develop their powers and equip them to assist in the rebuilding of our already profoundly disturbed national life. In the course of the two-day discussion many proposals for improvement of the work of our secondary schools were made and generally approved. But almost every suggestion was met with the statement, "Yes, that should be done in our high schools, but it can't be done without risking students' chances of being admitted to college. If the student doesn't follow the pattern of subjects and units prescribed by the colleges, he probably will not be accepted." Under these conditions not many schools were willing to depart very far from the conventional high school curriculum. They could not take chances on having their candidates rejected by the colleges.

The meeting was about to end in a sense of futility and frustration. However, someone with courage and vision proposed that the Progressive Education Association should be asked to establish a Commission on the Relation of School and College to explore possibilities of better co-ordination of school and college work and to seek an agreement which would provide freedom for secondary schools to attempt fundamental reconstruction.

The Commission was established the following autumn, October, 1930. Mr. Burton Fowler, then president of the Association, asked the writer to become chairman. Everyone invited to serve on the Commission was known to be concerned with the revision of the work of the secondary school and eager to find some way to remove the obstacle of rigid college prescriptions. Of the twenty-six members chosen, some had been active in the Washington meeting of the previous spring. Others were high school and college teachers; high school principals; college deans, presidents, and admission officers; evaluation specialists; educational philosophers; and journalists.[1] This group met from time to time, each member at his own expense, over a period of about two years. Although almost every educational interest and point of view was represented, all members agreed that secondary education in the United States needed experimental study and comprehensive re-examination in the light of fuller knowledge of the learning process and of the needs of young people in our society.

All members of the Commission were conscious of the amazing development of our secondary schools in the first three decades of the century. They realized that the number of boys and girls in high school had grown from less than

[1] For Commission membership, see introductory pages.

one million to almost ten millions; that about 70 per cent of all American youth of high school age are in school; that billions had been invested by states, cities, towns, counties, and townships in imposing buildings and modern equipment; that these communities were gladly taxing themselves to pay the salaries of nearly 300,000 high school teachers; and that the faith of the American people in education remained unshaken.

Many in this group had shared in these thirty exciting years of American education. They had seen the limited curriculum consisting chiefly of history, foreign languages, mathematics, science, and English extended to include the social studies, commercial subjects, the arts, home economics, shop work, and other courses of many kinds. They had participated in changing the content of traditional subjects and methods of teaching them. They had encouraged the development of student activities in speech, dramatics, music, athletics, publications, and a score of other fields. They had helped make the high school an orderly place of good feeling between teachers and pupils—a place to which most pupils went gladly because of pleasant association with others and interest in the general life of the school. They had seen the high school diploma become the magic key to doors of social and economic preferment.

These representative educators were vividly aware of the great achievements of our high schools. They shared the people's pride in them, but they were not satisfied. They were conscious of defects and determined, if possible, to correct them. They knew that of six who enter the high school only three graduate; of the three who graduate, only one goes on to college. For five out of six, then, high school is the end of formal schooling. For these *five* as well as for

the *one*, the secondary school years can become a profoundly significant experience, said these educators.

Schools and Colleges
Face the Facts

After more than a year's study the Commission issued a statement setting forth some of the areas which needed exploration and improvement by our schools. It seemed to the Commission that secondary education was clearly inadequate in certain major aspects of its work.

Secondary education in the United States did not have clear-cut, definite, central purpose. It had many goals, not one clear purpose in relation to which all others are of secondary importance. True, the high school diploma led to higher social and economic levels. It was believed that a "high school education" was good for youth but few asked seriously, "Good for what?" Neither society nor education knew certainly what the major purpose of the high school should be. The result was that teachers had no sure sense of direction and that boys and girls had no integrating, deeply satisfying school experience.

Schools failed to give students a sincere appreciation of their heritage as American citizens. The study of the history of the United States usually left students without understanding of the way of life for which we have been striving throughout our history; it seldom aroused enthusiasm and devotion. American youth left high school with diplomas but without insight into the great political, social, and economic problems of our nation.

Our secondary schools did not prepare adequately for the responsibilities of community life. Schools generally were excellent examples of autocratic, rather than democratic,

organization and living. Since little effort was made to lead youth into a clear understanding of the ideals of democracy, most students left school without principles to guide their action as they sought work and a place in adult life. Not many had developed any strong sense of social responsibility or deep concern for the common welfare.

The high school seldom challenged the student of first-rate ability to work up to the level of his intellectual powers. It was easy for him to "get his lessons," pass his courses. The result was that many a brilliant mind developed habits of laziness, carelessness, superficiality. These habits, becoming firmly established during adolescence, prevented the full development of powers. Even the conscientious student of superior ability did not often find himself seriously involved in a great intellectual enterprise. Seldom was any student "set on fire" intellectually, eager to explore on his own, ready to conquer difficulties and go through whatever drudgery might be necessary to achieve his purpose. The individual and society were both losers.

Schools neither knew their students well nor guided them wisely. Not often did teachers know students as young human beings striving to find their way into adulthood. Personal guidance was futile, usually involving only an occasional friendly chat; vocational guidance was limited to classroom study of occupations; and educational guidance was superficial, consisting chiefly of casual counsel concerning the subjects to be "taken" next semester. Few schools were seriously concerned about those who dropped out before graduation or about what happened to those who did receive diplomas.

Schools failed to create conditions necessary for effective learning. In spite of greater understanding of the ways in

which human beings learn, teachers persisted in the discredited practice of assigning tasks meaningless to most pupils and of listening to re-citations. The work was all laid out to be done. The teacher's job was to see that the pupil learned what he was supposed to learn. The student's purposes were not enlisted and his concerns were not taken into account. All this was in violation of what had been discovered about the learning process. The classroom was formal and completely dominated by the teacher. Rarely did students and teacher work together upon problems of genuine significance. Seldom did students drive ahead under their own power at tasks which really meant something to them.

Somehow, eagerness to learn grew less year by year as pupils advanced through school. This was not true of all, but it was characteristic of so many that the members of the Commission were seriously disturbed. They recognized that disintegrating and deadening forces outside school were partially responsible for this deplorable result, but they were quite sure that the content and organization of the curriculum had something to do with it.

The Commission was conscious, also, of the fact that the creative energies of students were seldom released and developed. Students were so busy "doing assignments," meeting demands imposed upon them, that they had little time for anything else. When there was time, they were seldom challenged or permitted to carry on independent work involving individual initiative, fresh combination of thought, invention, construction, or special pursuits. Although the creative urge may express itself in any field of endeavor, the arts, which afford unusual opportunity in this respect, were looked upon as "fads and frills," non-existent in many schools, inadequately taught in most others. Art, in its various

forms and uses, permeates everyday life. In its higher manifestations, it expresses the finest aspirations of the human spirit. Yet, only a few schools provided for their students enriching and satisfying experiences commensurate with the importance of the arts in our culture.

The conventional high school curriculum was far removed from the real concerns of youth. The subjects studied in the classroom were the curriculum; the *activities* of the students were the extra-curriculum. These activities, initiated and developed by students, were recognized as significant educational experiences, but they were outside the curriculum. There was little realization that much of the work of the classroom was meaningless to students and that they were doing the work assigned chiefly for the "credit" which would add one more toward the total required for a diploma or admission to college. The molds into which education was poured, rather than its essence and spirit, became the goals of pupils and parents alike. This emphasis upon "credits" blinded even the teachers so that they could not see their real task.

Young people wanted to get ready to earn a living, to understand themselves, to learn how to get on with others, to become responsible members of the adult community, to find meaning in living. The curriculum seldom touched upon such genuine problems of living.

The traditional subjects of the curriculum had lost much of their vitality and significance. The purposes they should serve were seldom realized even in the lives of students of distinguished native ability. The study of a foreign language did not often lead to extensive or searching reading of the great literature in that language; history usually was quickly forgotten, leaving no great concepts of human society, no deep understanding of the forces which mold man's des-

tiny; science raised few fundamental questions of the nature of man or the universe; mathematics seldom became an effective tool, and even less frequently did it become a challenge to insight and understanding; the study of literature generally failed to heighten appreciation, deepen comprehension, or aid in the interpretation of experience.

Most high school graduates were not competent in the use of the English language. They seldom read books voluntarily and they were unable to express themselves effectively either in speech or writing.

The Commission found little evidence of unity in the work of the typical high school. Subjects and courses had been added until the program, especially of large schools, resembled a picture puzzle, without consistent plan or purpose. It was customary for a pupil to patch together all sorts of pieces—two units here, one there, a half unit elsewhere. His chief purpose was to collect enough pieces to graduate. If there was basic unity underlying subjects, few students discovered it; subjects of study were isolated, planned and taught without reference to the student's other studies or to any unifying purpose.

Teachers worked alone or in subject departments. The teacher of English limited his vision and concern to his own field; the teacher of science labored only to teach a certain body of scientific fact and skill. Seldom did they confer, and when they did, the results were usually unsatisfactory because neither understood the other's interests or problems. The division of labor, even in the intellectual field, had been carried so far that common language and community of purpose were in danger of being lost. Specialization in teaching in the secondary school had made it almost impossible for any teacher to become himself a person of broad culture.

Teachers' lives were needlessly and unfortunately narrowed and impoverished.

The absence of unity in the work of the secondary school was almost matched by the lack of continuity. The student jumped from semester to semester, from year to year, seldom going anywhere in particular. His work of one year had little relation to that of the preceding or following year. Because neither he nor his teachers had definite, long-time purposes for his work, he had no clear road to follow or compass to guide him in finding his way through the tangled underbrush of the curriculum.

Complacency characterized high schools generally ten years ago. Elementary education had been revolutionized since the beginning of the century, but the high school was still holding to tradition. It was rather well satisfied with itself. Minor curriculum changes were frequently made, but there was little serious questioning of purposes, practices, or results. Lavish financial support and blind faith on the part of the people encouraged schoolmen to conclude that all was right with their world.

Teachers were not well equipped for their responsibilities. They lacked full knowledge of the nature of youth—of physical, intellectual, and emotional drives and growth. They understood little of the conditions essential to effective learning. Relation of the school to the society it should serve was only dimly perceived. Democracy was taken for granted, but teachers seldom had any clear conception of democracy as a way of living which should characterize the whole life of the school. Very few were capable of leading youth into an understanding of democracy and its problems, for they themselves did not understand.

Only here and there did the Commission find principals who conceived of their work in terms of democratic leader-

ship of the community, teachers, and students. Usually the principal was a benevolent autocrat or a "good fellow," letting each teacher do as he pleased as long as neither parents nor pupils complained. Most principals were constantly busy just "running the machine"; they seldom stopped long enough to ask themselves, Why are we doing this or that? What are we driving at? Where are we going?

Principals and teachers labored earnestly, often sacrificially, but usually without any comprehensive evaluation of the results of their work. They knew what grades students made on tests of knowledge and skill, but few knew or seemed really to care whether other objectives such as understandings, appreciations, clear thinking, social sensitivity, genuine interests were being achieved.

The high school diploma meant only that the student had done whatever was necessary to accumulate the required number of units. Graduation from high school found most boys and girls without long-range purpose, without vocational preparation, without that discipline which comes through self-direction, and without having discovered for themselves something which gives meaning to living. Youth knew its rights and privileges, but often missed the rich significance of duty done and responsibilities fully met. Unselfish devotion to great causes was not a characteristic result of secondary education.

Finally, the relation of school and college was unsatisfactory to both institutions. In spite of the fact that formal education for five out of six of our youth ends at or before graduation from high school, secondary schools were still dominated by the idea of preparation for college. The curriculum was still chiefly "college preparatory." What the college prescribed for admission determined, to a large

extent, what the boys and girls of the United States could study in school.

In large city high schools there was a wide range of fields of study, many of them designed for those who were not going to college; but parents and students looked upon the "college preparatory" subjects as the most "respectable." Thousands who had little or no aptitude for the work leading to college were engaged in it simply because it was the traditional thing to do. In the small high school of five or six teachers, with a necessarily limited offering of subjects, college prescriptions shaped the curriculum. When we realize that 60 per cent of all high school students are in schools of 200 or less, the importance of the influence of the college upon secondary education becomes apparent.

Most communities still judged the success or failure of the high school upon the basis of the school's standing with the colleges. When a student failed in his work in college and returned to his home community branded as a failure, the prestige of the school suffered severely in the eyes of its patrons. The failure of one student in college did more harm to the reputation of the school than its failure to adjust a hundred students who did not go to college to the work and responsibilities of life in the community. Because of this, the school placed undue emphasis upon preparation for college, to the neglect of its responsibility to those who were entering directly into the life of the community.

It was in no spirit of sweeping condemnation that the members of the Commission viewed the work of the secondary school in the United States. Their criticism was not so much of others as of themselves. They realized that many shortcomings were due to the amazing growth of our

schools, to the necessity of employing inadequately prepared teachers, and to lack of time to adjust the work of the school to new responsibilities. But understanding of the conditions which produced weaknesses in our schools did not lessen the Commission's conviction that earnest attempts to remove them should be made at once. The co-operation of more than 300 colleges and universities was sought and secured in 1932.

Schools and Colleges Join Hands

The plan of co-operation between schools and colleges provided that a small number of representative secondary schools, to be selected by the Directing Committee[2] of the Commission, would be released from the usual subject and unit requirements for college admission for a period of five years,[3] beginning with the class entering college in 1936. Practically all accredited colleges and universities agreed to this plan. Relatively few colleges require candidates to take College Entrance Board Examinations. In such cases, these examinations were waived by all except Harvard, Haverford, Princeton, and Yale. These four men's colleges, with this one reservation, accepted the proposal and agreed to co-operate. The Directing Committee was especially appreciative of the full co-operation of the women's colleges.

It was agreed that admission to college during the experimental period would be based upon the following criteria:[4]

A. Recommendation from the principal of the co-operating secondary school to the effect that the graduating student (a) is

[2] The Commission had become too large to work effectively. The Directing Committee was charged by the Commission with the responsibility of conducting the Study to its conclusion. For membership of Directing Committee, see introductory pages.

[3] This period was later extended to eight years.

[4] From "A Proposal for Better Coordination of School and College Work." For complete document, see Appendix, pp. 140-146.

possessed of the requisite general intelligence to carry on college work creditably; (b) has well-defined, serious interests and purposes; (c) has demonstrated ability to work successfully in one or more fields of study in which the college offers instruction.

B. A carefully recorded history of the student's school life and of his activities and interests, including results of various types of examinations and other evidence of the quality and quantity of the candidate's work, also scores on scholastic aptitude, achievement, and other diagnostic tests given by the schools during the secondary school course.

It is intended that the tests used will be of such character that the results submitted to the colleges will give a more adequate and complete picture of the candidate than is given by methods now in use. A special Committee on Records is now at work endeavoring to determine:

1. what information the college needs for wise selection and guidance of students;
2. how that information can best be secured;
3. in what form it should be recorded and presented to the colleges.

The co-operating colleges will not be obliged to admit under this agreement all such students as meet the new requirements. However, during the experimental period and from the limited group of cooperating schools, the colleges agree to accept students under this plan without regard to the course and unit requirements now generally in force for all students, and without further examination. The colleges, for this period, agree, also, that students applying for admission under the new requirements will be considered without discrimination in comparison with students applying from other schools where present requirements are in effect.

The Directing Committee approached the task of selecting the secondary schools to participate in the Study by asking school and college officials in strategic positions in various parts of the country to recommend schools which would contribute to the improvement of secondary education if given the opportunity provided by this agreement

with colleges and universities. About two hundred schools were suggested. Every member of the Committee then occupied a full-time, responsible post. No one was free to give the time necessary for careful investigation, but acting as wisely as possible under the circumstances, the Committee chose twenty-eight schools which seemed well-qualified to promote the purpose of the Study. Later two California schools were added.

In making selection, the Committee decided to include both private and public schools, large and small schools, and schools representing different sections of the United States. But the chief concern of the Committee was to choose competent schools which were dissatisfied with the work they were doing and eager to inaugurate exploratory studies and changes which could not be undertaken without the freedom granted by the colleges. The schools[5] finally chosen to cooperate in the Study are:

Altoona Senior High School
Altoona, Pennsylvania
Baldwin School
Bryn Mawr, Pennsylvania
Beaver Country Day School
Chestnut Hill, Massachusetts
Bronxville High School
Bronxville, New York
Cheltenham Township High School
Elkins Park, Pennsylvania
Dalton Schools
New York, New York
Denver Senior and Junior High Schools
Denver, Colorado
Des Moines Senior and Junior High Schools
Des Moines, Iowa
Eagle Rock High School
Los Angeles, California
Fieldston School
New York, New York
Francis W. Parker School
Chicago, Illinois
Friends' Central School
Overbrook, Pennsylvania
George School
George School, Pennsylvania
Germantown Friends School
Germantown, Pennsylvania

[5] In 1936, one of the original 28, Pelham Manor, withdrew with the consent and approval of the Directing Committee.

Horace Mann School
New York, New York
John Burroughs School
Clayton, Missouri
Lincoln School of Teachers College
New York, New York
Milton Academy
Milton, Massachusetts
New Trier Township High School
Winnetka, Illinois
North Shore Country Day School
Winnetka, Illinois
Radnor High School
Wayne, Pennsylvania
Shaker High School
Shaker Heights, Ohio
Tower Hill School
Wilmington, Delaware
Tulsa Senior and Junior High Schools
Tulsa, Oklahoma
University of Chicago High School
Chicago, Illinois
University High School
Oakland, California
University School of Ohio State University
Columbus, Ohio
Winsor School
Boston, Massachusetts
Wisconsin High School
Madison, Wisconsin

The schools began their new work in the fall of 1933. Each developed its own plans and decided for itself what changes should be made in curriculum, organization, and procedure. The Directing Committee had decided that the independence and autonomy of each school must be carefully guarded. It thought that significant developments could come only out of each school's sincere attempt to serve better the boys and girls in its own community. The Directing Committee attempted through its membership, through sub-committees, and through specialists in the fields of evaluation, records and reports, and curriculum to render every possible assistance sought by the schools, but to avoid any tendency to dictate thought or action. That policy gave to the schools the freedom and responsibility which belong to them. Without preventing essential unity of purpose, this

thoroughly democratic procedure has led to desirable variety in organization and procedure.

The Schools Plan for Use of their New Freedom

In 1933, shortly after the participating schools were chosen, the principals met with the Directing Committee to plan together for eight years of difficult work. Everyone had a strong sense of sharing in a great adventure; few anticipated fully the hard work, the problems, the discouragements, and the eventual satisfactions which were to come. No one present at that first conference will ever forget the honest confession of one principal when she said, "My teachers and I do not know what to do with this freedom. It challenges and frightens us. I fear that we have come to *love our chains.*" Most of us were just beginning to realize that we were facing the severest possible test of our initiative, imagination, courage, and wisdom. No one of the group could possibly foresee all the developments ahead, nor were all of one mind as to what should be done.

Members of the Commission and representatives of the Thirty Schools continued to meet annually to think and plan together. Although each school would decide for itself what to do with this new freedom, everyone was eager to have the benefit of the thinking and experience of all others. The reader should keep in mind always that the principals and teachers of the Thirty Schools were striving, groping, searching constantly in their attempts to decide what to teach and how to teach. The schools did not all start from the same place or go in the same direction. It is difficult, therefore, to report their purposes and plans both briefly and accurately. However, it can be stated that they became convinced, in the course of reconsideration of their own work, that *two*

major principles should guide their efforts at reconstruction.

The first was that the general life of the school and methods of teaching should conform to what is now known about the ways in which human beings learn and grow. Until recent years learning in school has been thought of as an intellectual process of acquiring certain skills and of mastering prescribed subject matter. It has been assumed that physical and emotional reactions are not involved in the learning process, but if they are, they are not very important. The newer concept of learning holds that a human being develops through doing those things which have meaning to him; that the doing involves the whole person in all aspects of his being; and that growth takes place as each experience leads to greater understanding and more intelligent reaction to new situations.

Holding this view, the participating schools believed that the school should become a place in which young people work together at tasks which are clearly related to their purposes. No longer should teachers, students, or parents think of school simply as a place to do what was laid out to be done. Nor should schooling be just a matter of passing courses, piling up credits, and, finally, getting a diploma. The school should be a living social organism of which each student is a vital part. It should be a place to which one goes gladly because there he can engage in activities which satisfy his desires, work at the solution of problems which he faces in everyday living, and have opened to him new interests and wider horizons. The whole boy goes to school; therefore school should stimulate his whole being. It should provide opportunities for the full exercise of his physical, intellectual, emotional, and spiritual powers as he strives to achieve recognition and a place of usefulness and honor in adult society.

The Thirty Schools realized that many changes in ways of teaching, as well as in organization and curriculum, were necessary if attendance at school was to become the stimulating, meaningful experience it could be for each student. They knew that the classroom should become a place of co-operative activity in which teacher and students would seek together to achieve results which they believed important. Only as society's demands and student concerns were united in school objectives could education become an experience of vital significance. Only then would eager outreach for knowledge and understanding supplant credit accumulation. Only then would earnest, hard work be done gladly and intelligently. For then the student would be seeking the essence and substance rather than the forms and husks of education.

The second major principle which guided the work of the participating schools was that the high school in the United States should re-discover its chief reason for existence. It is not enough to create better conditions for learning. It is equally necessary to determine what American youth most need to learn. Out of their searching study the Thirty Schools came to realize that the primary purpose of education is to lead our young people to understand, to appreciate, and to live the kind of life for which we as a people have been striving throughout our history. Other things are important but only relatively so. It is necessary to teach the three "R's," science, language, history, mathematics, the arts, safety, vocations, and most of the other subjects that now crowd the curriculums of the schools; but unless our young people catch the vision which has led us on through all generations, we perish.

Year after year the conviction became clearer and deeper that the school itself should become a demonstration of the

kind of life in which this nation believes. The Commission and the schools said that the most important service the school can render youth is to give them understanding and appreciation of the way of life we call democracy, and that the best way to understand and appreciate is to live that kind of life at school every day.

It was soon discovered that application of principles of democracy to the life of the school would cut deep. To develop a sense of worth in each individual, to promote full participation by each one in the affairs of the school, and to lead everyone to think for himself would demand radical change in many aspects of the curriculum and ways of teaching. Nevertheless, the Thirty Schools, holding these ideas, set to work to put them into practice.

They were quite sure that the spirit and practice of experimentation and exploration should characterize secondary schools in a democracy. The schools in the Eight-Year Study came to be called "experimental" schools. Most schools were fearful of such appellation. The term had come to connote foolish, careless, haphazard changes made without serious study and concluded without painstaking evaluation of results. The Thirty Schools entered the Study to make honest attempts to find better ways of serving their students. Thoughtful investigation and planning preceded each innovation, and careful measurement of results followed. If results were not satisfactory, further change was made in the light of fuller knowledge. In this sense the Thirty Schools were and are "experimental" and they believe that every school in a democracy should be, also. No aspect of any school's work should be so firmly fixed in practice or tradition as to be immune from honest inquiry and possible improvement. It is only in this way that life and vigor are maintained and progress achieved.

Many in the Study thought *that fundamental revision should be undertaken only after thoughtful, co-operative reconsideration of the high school's function in the community it serves.* They believed that no change in any part of the curriculum should be made without consideration of its effect upon the whole program of studies. They realized that this would require time, organization, and leadership.

As the schools began their studies preparatory to revision of their work, *they were sure that the curriculum of the secondary school should deal with the present concerns of young people as well as with the knowledge, skills, understandings, and appreciations which constitute our cultural heritage.* There was no disposition to undervalue or eliminate from the curriculum the accumulated, well-organized experience of civilization. But there was widespread recognition of the fact that much of the conventional high school curriculum had become inert and of little value and that many vital needs of youth were not being met effectively. Many of the schools thought that the problems common to young people growing up in the United States should constitute the heart and center of the curriculum for all, whether they are going to college or not.

Every school in the Study sought from the start to develop greater unity and continuity in the curriculum. They realized that artificial barriers, which separated subject from subject and teacher from teacher, had been erected in schools generally. In all the proposals for change submitted by the schools in 1933, there were devices for bringing subjects together and for teachers to plan and work co-operatively. It was thought that these changes would enable students to see the relationship of one subject to another; teachers and students would begin to glimpse the underlying unity of all knowledge.

Continuity was to be found by arranging courses in better sequence. In a few of the schools it was realized at the beginning that really significant continuity of experience cannot be achieved by any fixed pre-arrangement of courses alone. This year's work must build upon last year's, but no two groups or individuals are the same. Therefore, some schools with unusual insight and understanding attempted to secure continuity of growth by enlisting the students in the work of planning each unit of study in relation to the experiences which had gone before.

Because of their concern for the individual as well as for the whole group, *the schools realized that they must know each student well and guide him wisely.* They said they should know each one as a person, not just as a student of English or mathematics or as halfback on the football team. Some teacher should know him in these and all other phases of his life, including his home. That teacher should be sensitive, understanding, and wise enough to bring all the appropriate resources of the school and community to bear upon the task of guiding the student in meeting his personal, educational, and vocational problems.

From the beginning *the Commission and the schools recognized their responsibility for measuring, recording, and reporting the results of their work.* They knew this would be difficult. They realized that neither they nor any other schools really knew much about the results of school experiences in the lives of their students. They had means of measuring accretions of knowledge and development of skills, but they could not be sure of the achievement of other equally important but less tangible purposes. They expected that fuller appraisal of results would facilitate curriculum revision, revealing weaknesses and strengths and providing a sound basis for further change.

As the Study got under way, *the Thirty Schools hoped that more satisfactory relations with colleges and universities would be developed.* Some schools were sending almost all graduates to college; from others only one in five or six continued his formal education. All the schools were eager to improve their service to both groups. Theoretically, secondary schools were free to meet the needs of the non-college-going student in any way they wished; but, as has been pointed out, college requirements fixed in most schools the program of studies for all. It was acknowledged that high schools did have a limited range of freedom, but it had to be admitted that they did not use the freedom they possessed and that college prescriptions were often only an excuse for stagnation and inaction.

Now that these requirements were no longer binding on the Thirty Schools, they were under the necessity of proving that they could use freedom creatively and wisely. They were eager to do this, for they believed that the larger measure of freedom which they now had should characterize school and college relations generally. *They doubted that success in college depends upon the study of certain subjects for a certain length of time.* They questioned the basic assumption upon which college-school relations were based: that only by the study of English, foreign language, mathematics, science, and history could a student be prepared for the work of the liberal arts college.

The schools believed that there are many different avenues of study and experience by way of which young people could develop the skill, understanding, and intellectual maturity necessary for satisfactory achievement at the college level. They were convinced that work in school should have meaning for each student because of its pertinence to his

concerns and that such work would develop the powers needed in college. In the formal proposal to colleges and universities, the Commission stated, "We are trying to develop students who regard education as an enduring quest for meanings rather than credit accumulations." The schools were confident that this could be done by basing the secondary school curriculum upon the needs of youth in our society. If the high school helped students to find the meanings of their life experiences, they would go on to college to seek deeper and broader meaning in their maturing experiences. To this end traditional studies would have to be revitalized and re-oriented; much new content would have to be included in the curriculum of school and college.

The schools involved in the Study were quite sure that they could *really prepare* students for the life and work of college. Most "college preparation" consisted of doing what was necessary to get in. Little thought was given by the student or his teachers to the real purposes in going to college or to the problems of living and working there. These schools took their eyes off the college gates and looked to the fruitful fields beyond.

Everyone involved in the Study was convinced that some means should be found by which teachers in the schools and professors in the colleges should work together in mutual respect, confidence, and understanding. Unless this could be done, the Thirty Schools knew that honest, realistic co-ordination of school and college work would not be achieved.

And so the adventure in pioneering was begun. To some teachers even in the participating schools the Study was an unnecessary and dangerous innovation; to some college professors "Progressive Education now had enough rope to

hang itself"; and to some parents the Study was a source of uneasiness and dissatisfaction. But to most of the teachers in the Thirty Schools and to thousands of educators and parents throughout the nation, it held great promise for the future.

Chapter II

THE SCHOOLS CHOOSE THE DEMOCRATIC WAY

Those were exciting days in 1932, 1933, and 1934 when the Thirty Schools were planning and inaugurating their new work. Principals, teachers, and students were caught up in the spirit of adventure and exploration. "Now," they said, "we can make school what it ought to be. We are free from outside domination; no one is telling us what we must do. We shall re-create our school. We are part of a nation-wide project; the eyes of the educational world are upon us. The colleges trust us. We have a great privilege and responsibility."

The Schools Start in Many Different Directions

The first meeting of representatives of the schools with the members of the Commission was held in March, 1933. College presidents, deans and professors, school principals and teachers were there. For two days—morning, afternoon, and evening—schools told what they expected to do with their freedom.

The schools look back now upon that first meeting with some amusement and with realization of the inadequacy of their preparation at that time for the hard tasks ahead. The proposals for their new work ranged over a wide field, all the way from plans to teach "The Progress of Man through the Ages" to instruction in "Football from the Spectator's Point of View." Most of the plans were quite ambitious,

stated in glowing, general terms. One school proposed to do these two things: "The school will present to its students the opportunity for fullest development as individuals, both in their formative years and in adult life; it further will contribute to the progress of society through increasing the value of their participation in present and future situations." Another school proposed this for its work in English: "The literature which grew out of the life of the peoples who participated most actively in the development of the new patterns of civilization in the last 300 years will be studied." That would seem to be a sizeable job, but another school proposed "to study primitive man and to continue over a three year period to include the history of our own country together with problems of international scope." Another school set for itself an even larger task: "Our program attempts to aid pupils to come to an understanding and appreciation of what civilization has meant from time to time in different cultures and continues to mean in terms of social organization, production and consumption, standards of living, order, individual liberty, group co-operation, ethical standards and achievements in the arts and literature."

Other changes proposed were of a quite different nature. Illustrative of these were plans announced by various schools "to include social dancing in the curriculum," "to eliminate the motive of individual competition," "to provide for distribution of time for each student as follows: major field of interest or ability, 40%; minor field of interest, 15%; physical recreation and health, 20%; social studies, 15%; maintenance of basic skills, 10%." Several schools planned to provide for longer class periods with less rushing from room to room. Many expected to eliminate the division between curricular and "extra curricular" activities. One school proposed to graduate students, not when the student had accumulated

sixteen credits, but when, in the judgment of teachers, parents, and the student himself, his growth would be promoted more effectively in college or in a vocation. A few of the schools which had been established as "experimental schools" proposed to use the freedom granted by the colleges to expand new work already under way.

Anyone familiar with the numerous demands made upon schools in the United States will not wonder that the Thirty Schools began in some confusion and with diversified purposes. Many teachers, looking back upon those early days, feel with the one who says, "At the beginning of the Eight-Year Study all of us were rather frantic in our new undertaking. We wanted to do everything, omit nothing. That, of course, was wrong. We have learned so much from this fine experience that it makes one laugh sometimes at the way we started out."

Uncertainty there surely was. One private school was even uncertain of its continued existence because of the discontinuance of a large annual contribution of funds by one of its founders. However, those beginning proposals indicated a significant move away from the conventional college preparatory curriculum.

Varying Conditions Affect Progress

Many factors conditioned each school's participation in the Study. The schools whose patrons are prosperous, well-satisfied with life generally, and therefore conservative, had to move cautiously and slowly. Some schools, finding it difficult to realize that the colleges really meant what they said, failed to take full advantage of their freedom. In some cases administrative leadership was inadequate; in others, the teachers were divided in rival and antagonistic groups. On

the other hand, some of the schools were fortunate in having strong, intelligent parent co-operation and support. Most schools had unusually capable educational leadership and teachers who habitually worked together in effective co-operation.

Even more marked were other differences among the schools. Here, for example, is a private school of 300 pupils and 30 teachers. It is located in the country just out of the city. The surroundings are delightful: fresh air and sunshine, trees, flowers, grass, abundant playing space, adequate equipment, a charming library of many books, a long school day with time for individual consultation, all sorts of student activities, and at least an hour of play every day. In this school the pupils almost all come from homes of high social and economic privilege, and intelligence quotients range from 90 to 160+, with a median of 120. Salaries are adequate to attract and hold superior teachers, and the average teaching load is 5 classes per day of 25 students each. Almost all students go on to college.

In sharp contrast is a city high school of 2500 students and 80 teachers. It is located in an old, dingy, smoky section of the city. There is no play space at the school; an "athletic field" is two miles away, but there are no means of transportation. The building is old, with dark rooms and long, narrow corridors connecting the many additions erected without plan from time to time. The library is unattractive; the classrooms are formal and forbidding. The students come from the lower middle and lowest economic and social groups, with several rather large racial minorities. Intelligence quotients range from 60 to 160+, with a median of 90. Twenty per cent of the students score below 80. About 10 per cent go on to college. The usual teaching load is 40 pupils per class, 6 classes per day. The city salary schedule is some-

what better than average, and teachers find it possible to live in fairly comfortable circumstances.

The other schools in the Study stand between these extremes. Six are officially connected with universities as demonstration or laboratory schools. In many ways they are well equipped and strategically located for educational experimentation, but their responsibility for teacher education often makes pioneering difficult.

Under these varying circumstances the Thirty Schools set out upon their eight-year journey of exploration and trail-blazing. It is obviously impossible to record here all that happened on the way. The story is told more in detail in the other four volumes of the Commission's Report. Only the high lights can be reported in this volume. The next chapter tells of the changes in curriculum and methods of teaching. But a school is something more than curriculum and teaching. It is a society in itself, composed of young people and adults living and working together. This school-society has general characteristics and ways of functioning which have great educative force in the lives of its members. This chapter records some of the major developments in the general life and work of the schools.

Out of Uncertainty Comes Sure Sense of Direction

When they began their journey, the Thirty Schools had many common goals. This fact is clearly revealed in their first statements of purposes. For example, they all sought adaptation of work to individual needs, greater mastery of skills, more opportunity for release of creative energy, more continuity in learning, greater unity of school experiences. It is equally clear, however, that in the early years few schools had any dominant purpose to which all other pur-

poses were related. One searches their original statements in vain for indication of *central* purpose. But out of great tribulation they found it. Statements of objectives were revised again and again. "Out of all the possible experiences which the high school should provide for youth," they asked, "which ones should we select? How shall we decide?" From those early attempts to discover the direction in which they should travel, there emerged one great central purpose.

It must be emphasized that this sense of the need for basic, guiding principles came gradually in the schools of the Study. Although many important and worthy objectives are to be found in the first proposals, it was not until about 1937 that sure sense of direction was expressed in the philosophy of the member schools. Even as late as 1935 there was still reluctance on the part of many representatives of the schools to devote any considerable portion of the annual meeting of school Heads and the Commission to consideration of fundamental principles of American education. At the conclusion of a session devoted to search for the meaning of democracy, several school principals said, "This has been very interesting, but let's give no more time to philosophy. What we need is discussion of the practical job of curriculum revision." But two years later everyone recognized the need of a sound philosophy for reconstruction of American secondary education.

They found what they sought in the democratic ideal, in the American way of life. "The high school in the United States," they said, "should be a demonstration, in all phases of its activity, of the kind of life in which we as a people believe." If the reader will turn to the final school reports in Volume V, he will discover that the chief concern of every school now is to maintain and promote the American way of life. Two extracts from these reports make this clear.

One is taken from the report of a university school; the other, from a large public school.

The democratic way of life is based upon the assumption of respect for human personality. . . .

On the physical side the democratic way of life means proper nourishment, shelter, clothing, medical care, and conditions of work that are conducive to normal growth and development. On the mental side it means freedom to plan one's life and to carry out these plans with due consideration for the consequences to oneself and others; to utilize the cultural contributions of the race for the purpose of enriching life; and to utilize intelligence in reconciling conflicts, understanding self and society, and in determining conduct.

A distinctive personality cannot be developed in isolation. It develops only when there is free interplay with other personalities. Full and free participation within a given group, and among groups, is the best way of promoting desirable individual development in a complex, interdependent society. While wholesome individual development is the basic goal, associated living is the better means of achieving it. The test of every social and political organization is the effect which it has upon the individuals who are touched by it. If it enhances and enriches human personality it is desirable; if it tends to destroy or narrow opportunities for development, it is undesirable, and hence contrary to the ideal.

The development and enrichment of human personality, through living and working together for common purposes and ends, implies the use of intelligence as a method; for only as individuals and groups are free to formulate plans and to carry out programs of action upon the basis of reflective thinking, can human institutions be progressively refined.[1]

This school's report then shows by illustration how the work of that school evolves from its philosophy of life and education.

[1] University School, Ohio State University, Vol. V, *Thirty Schools Tell Their Story.*

In a city school system the necessity of finding central purpose is equally insistent. Here is a frank statement from a city in which ten junior and five senior high schools are participating in the Eight-Year Study.

It was not until the experiment had been under way for four years that the need for a clearer relationship between the purposes of the Study and the curriculum to be provided became apparent. . . .

. . . . . .

. . . The following statement of the philosophy of the Denver schools as a whole is the outgrowth of the Eight-Year Study and was planned by a committee representative of the elementary schools and the junior and senior high schools of the city.

"In formulating its philosophy, a school must determine its own beliefs concerning the nature of the individuals with whom it works and the character of the society which it serves. The Denver Public Schools regard human beings as dynamic and purposive, with a capacity for growth and the ability to develop through experience. The schools of Denver believe that a democratic society is the society most congenial to the optimum development of such individuals. Democracy, so conceived, is a way of life. This includes at all times (1) the free play of intelligence, (2) respect for the worth of individuals, that is, placing human values first, and (3) the participation of all individuals in social living, which is broadly interpreted to include all human relationships.

"The chief function of the schools in a democracy is to conserve and improve the democratic way of life. The Denver Public Schools maintain that they can best undertake such a responsibility by

1. making the life concerns of pupils the central theme of the curriculum;
2. recognizing that individual concerns and social concerns are interdependent;
3. making functional guidance an integral part of all educational activities;

4. evaluating the school program in terms of the personal and social growth of pupils;
5. organizing the school program to reveal the relationships of learning;
6. providing a close, direct, working relationship with the community.

This philosophy has guided the Denver schools in setting up the objectives of their program. . . ."[2]

The chief developments in general school life in the Eight-Year Study grew out of this emerging concept of democratic life and education. It gave direction to changes in school administration, in home-school relations, in the teacher's role in the school, and in the student's part in the life of the school-society.

Administration Becomes Democratic Leadership

School administration in the United States has been autocratic, by and large, rather than democratic. Administration in the schools chosen for the Study ranged all the way from autocracy to *laissez-faire*, with here and there real democracy in action. These differences are illustrated in the ways in which the original proposals for curriculum change were prepared.

In one place the principal, a brilliant and courageous educator, prepared an outline of a curriculum departing radically from that of the conventional high school. It was passively accepted by the teachers. About one-third of the teachers and pupils followed the new plan while the other two-thirds continued with the traditional work. In another school the principal gave permission to 6 of the 90 teachers to inaugurate curriculum changes which they had planned. Two hundred and twenty pupils in the school of 2500 were

[2] Denver Schools, *ibid.*

involved. The principal had not shared with the teachers in the thinking which led to changes in the curriculum, nor did he understand very clearly what the new plans involved. However, the six teachers were among the best in the school, so he told them to go ahead. In a third school the principal and teachers had met for two hours each week for a year to reconsider the school's purposes and practices and to plan together the changes which should be made for all students.

The history of these cases is illuminating. The brilliant plan conceived by the first principal came to grief because the teachers did not believe in it. It was his, not theirs. In the second case, the work of the six teachers was severely handicapped because of misunderstanding and criticism by other teachers and parents, and because of the principal's unwillingness or inability to give the pioneering teachers the support they needed. The plans of the third school were carried on satisfactorily, with modifications from time to time as the principal and all teachers continued to study, plan, work, and evaluate co-operatively.

The role of democratic leader is more difficult than that of benevolent autocrat. The school Heads found that it exacted patience and wisdom. Especially did it require faith in the intelligence and good will of teachers, pupils, and parents. One group of teachers writes this of their relationship with their principal: "The principal works co-operatively with the faculty. It is his responsibility to free teachers for the best use of their talents."[3] This statement now characterizes the spirit of most administrators in the Thirty Schools and indicates, in part, the role they attempted to play as democratic leaders.

In such a role, most of them realized that teachers, like other human beings, need a sense of security in their work.

[3] Tower Hill School.

Tenure—security of livelihood—is not enough. The administrators in the participating schools saw that they must create conditions in which teachers dared to be honest in expressing their convictions. The spirit of adventure was encouraged. Teachers in most of the schools were made to realize that they were not in danger of disapproval or criticism if they tried new ways, even if they did not always succeed. In most cases, they knew with certainty that every serious, well-considered departure from the conventional way of doing things had the backing of the principal and that he would stand with them if criticism followed or if the results were not all that were expected.

In all aspects of the school, administration can be a help or hindrance to progress. As one school superintendent writes, "Administration frequently, by its inertia, its traditional patterns and solutions, has held up the development of the work of teaching and guidance to which it owes its sole excuse for being. It is inevitable that some change in administrative organization must be effected before many vital changes in the curriculum can be accomplished."[4]

From the beginning, one of the most pressing of administrative problems was that of providing time for teachers to study and plan together. In most schools principals and teachers are fully occupied in the school day. There is little opportunity for conference. Every teacher knows that an hour late in the afternoon is not a good time for constructive thinking. Here, then, was a problem calling for imagination on the part of the administrator.

One school solved the problem with some satisfaction by meeting for two hours one evening each week. This meeting was preceded by a late afternoon hour of exercise, then dinner together. Another device found satisfactory in sev-

[4] Sydney Rowland, Radnor High School.

eral schools is that of beginning school in the morning at, say, nine o'clock instead of eight-fifteen. Teachers come at eight and have an uninterrupted hour for conference as a whole faculty or in committees. Students take responsibility for building and playgrounds before nine. Other arrangements have been worked out in other schools. Whatever plan is adopted, the importance of finding time for deliberation cannot be over-emphasized.

If it is essential that the staff of an individual school co-operate in setting up purposes and in planning ways to achieve them, it is equally necessary that the schools which comprise a city school system should find ways of working together for common ends. Although there should be differences among the schools, growing out of differences in home background, interests, needs and purposes of the student body, the major goals should be the same throughout the city. To secure the necessary co-operative planning, various administrative devices have been developed among the Thirty Schools. One of the most effective plans is The School Policies Council, functioning in somewhat different ways in Denver, Tulsa, Des Moines, and Shaker Heights.[5] Representatives of all the schools unite with the superintendent and central administrative group to bring essential unity into the work of the schools.

The strength of such an organization depends largely upon the sincerity of the superintendent's belief in democratic principles and processes. One important tenet of democratic administration is that action should follow full deliberation. Sometimes after teachers and administrators had studied a problem at length and had decided upon a course of action, nothing was done. The changes agreed upon were not made and no explanation was forthcoming. The inevi-

[5] Vol. II, *Exploring the Curriculum*, Chap. VI.

table result was a feeling on the part of teachers that their time and energy given to co-operative planning were wasted. On the other hand, when changes were made as planned, teachers were encouraged to further creative thought and action.

The resources of administration were challenged in another area as the schools attempted to know their boys and girls better. How could teachers be "free for the best creative use of their talents" in this respect? Everyone realized in schools generally, especially in the larger ones, that many a pupil failed and no one knew why; that many a girl dropped out of school and no teacher knew why; that many a student accomplished much less than his ability called for and no one knew the reason. Many a boy, perhaps undernourished, perhaps emotionally upset, came to school from an unhappy home, but no one at school knew.

The Thirty Schools recognized that some way must be found by which each pupil should be well known by at least one teacher. They took seriously this obligation of knowing their students well, and several effective ways were found to meet it. Such arrangements as these were devised in various schools:

> The counselor or home-room teacher became also the teacher of his home-room group in one or more subjects.
>
> The counselor continued with the same group of students, not just for a semester or year, but for two and often three years.
>
> Instead of a formal report of grades sent to the student's home without his previous knowledge, a carefully written statement of his progress was prepared jointly by adviser and student. This often led to a conference attended by counselor, parents, and pupil, re-

sulting almost always in greater knowledge and understanding.

The counselor visited each student's home, at least once each year, more frequently if necessary.

Organization of teachers around groups of students with whom they all were working supplanted, to a considerable extent, the traditional departmental organization around subjects.

In some of the large high schools a smaller school within the larger one was organized. Thus 6 teachers became responsible for 210 students for the greater part of the school day. Each teacher was counselor of 35 students, and the 6 teachers and the 210 boys and girls worked together as a unit. The schedule was arranged so that there was flexibility in class grouping and so that the six teachers had an hour together for conference every day.

Teachers have learned much about their students by means of the new tests developed as a part of the Study.[6] By using these instruments of evaluation, designed to measure growth in reflective thinking, social sensitivity, extent and depth of interests and appreciations, teachers discovered many significant facts which might not have been revealed otherwise.

Perhaps the most effective way of knowing and counseling individuals has been found by those schools which have developed core programs dealing with the common concerns and problems of their students. The counselor is also the "core" teacher. Two hours each day are usually devoted to the units which comprise the core curriculum.[7] Thus the counselor inevitably

[6] See Chap. IV; also Vol. III, *Appraising and Recording Student Progress.*
[7] For discussion of the core curriculum, see Chap. III, pp. 57-61.

becomes aware of the students' concerns, for they are the subjects of study and investigation. And as he enters into their lives through helping them with their problems of living, he becomes truly their counselor, guide, and friend.

Home and School Work Together

The creation of a high school appropriate to democratic society involves not only fundamental change in school administration, but also effective collaboration of home and school. Few of the Thirty Schools realized fully in the beginning that changes in the school cannot be satisfactorily made without participation and understanding by parents.

Most parents of the present high school generation went to high school for at least a year. They think of it as they knew it when they were students. Anything different from their own school experience tends to disturb them. When their sons and daughters tell of "integrated subjects," "core courses," "culture epochs," excursions for community study, teacher-pupil planning, and the like, parents wonder what in the world is going on at school. They are inclined to have confidence in the teachers, but these strange things cause doubts to arise. Most parents want schools to be alive and to make progress, but they want to be sure that established curriculums and ways of teaching are not changed without good reason and that the new ways are sensible and sound. Of course, every school has a few patrons who object violently and noisily to any change from "the good old days of the little red school-house on the hill."

If principal, teachers, and students have one concept of education and parents quite another, misunderstanding, conflict, and unhappiness are inevitable. To avoid such misfor-

tune, many of the Thirty Schools arranged frequent conferences with parents for full explanation of changes so that home and school might work in harmony. More important still, some of the schools[8] brought parents into effective participation with teachers and students in studying the function of the school in the life of the community and in formulating guiding principles. Where this was done, school and home moved forward together.[9]

Through general parent-teacher meetings, grade parent conferences, small group discussions, and individual teacher-parent interviews the school's work was interpreted so that doubts were dissipated through understanding. Some of the schools have organized parent groups to study major educational issues. Out of such study the most reactionary parent often becomes a vigorous advocate of change and a strong supporter of innovations in school practice. Usually the extreme conservative in education is one who does not know young people well. He has not entered into their lives or faced with them the serious problems which confront them. The schools startled many a hidebound parent and teacher out of his complacency by having him visit a few of the miserable homes from which some boys and girls come to school.

Belief in education and faith in its possibilities are almost universal in American life. No phase of our common life has greater appeal to our people. In every community there are many men and women able and ready to serve the cause of education. Schools are learning through experience how to draw upon these rich human resources for counsel and support.

[8] Bronxville, Dalton, Des Moines, John Burroughs, Shaker Heights, Tower Hill, and others.

[9] Vol. II, *Exploring the Curriculum*, Chap. VI.

Teachers Attain New Dignity and Worth through Participation

The teacher has always had the leading role in schools everywhere. In democracy's high school his part becomes even more important. He does not merely play his assigned part; he helps select the play and is concerned with the whole production. Less figuratively, democratic education involves the individual teacher in the whole program of the school. He no longer works in isolation. He shares with administrators and other teachers in determining the school's principles and purposes, in formulating policies and in putting them into practice, and in building the curriculum.

In a school governed by the autocratic tradition the teacher was assigned a subject to teach. He was told by the "authorities" what textbook to use, the number of pages to be assigned, the amount of work to be "covered" by the end of the term. He was seldom invited to consider anything outside his immediate task, and almost never was he permitted to offer any sort of criticism, no matter how constructive it might be.

In the Thirty Schools teachers were brought into full sharing in the general life of the school. This involved much more co-operative thought and action than before. Many teachers found this difficult. Some few were unwilling or unable to work happily with others, but the great majority did, to the advantage of the school and themselves. By studying and planning with others, teachers widened their own horizons and enriched their own lives. Narrow subject specialization had limited their interests. Collaboration enabled them to understand other fields more fully and to see the relationship of their own specific task to the whole work of the school.

It was in curriculum revision especially that the teachers

entered more significantly into the general life of the school. To make curriculum changes intelligently it was necessary to reconsider the educational principles which the school held and the practices which it followed. Participation by the teacher in this fundamental reconsideration of the whole range of the school's activity gave him a sense of whole-school responsibility.

In almost all of the participating schools the changes that have been made in curriculum and teaching procedures have come through such faculty collaboration. Syllabi for courses are no longer prepared in the superintendent's or principal's office and handed out to teachers. In some of the member schools no decision affecting the general life of the school is made except by faculty consideration. In a few schools an elected committee of teachers shares with the principal in allocating the school's income even in such matters as teacher's salaries. This more extensive participation in curriculum building, policy making, and school management adds to teachers' loads, but they testify that it is worth much more in growth than it costs in time and energy.

Students Meet the Challenge of Responsibility

As application of the democratic principle of participation to general school life has expanded the realm of teacher action, so it has given the students a larger share in their own education. Because they know that young people develop strength by taking responsibilities, the Thirty Schools have provided greater opportunity for them to share in school management and curriculum planning. Of the many ways of sharing responsibility, so-called "student government" is most common. In the schools of the Eight-Year Study students work with teachers in *co-operative* rather

than *student* government. Education demands all the wisdom that young people and adults together can bring to the task.

Students share in many different activities such as protecting younger pupils at street crossings, regulating student use of automobiles, caring for school property, serving as hosts to school visitors, managing dining halls, corridors and study rooms, setting up exhibits of school work, interpreting the work of the school to parents, planning school assembly programs, developing cordial relations with other schools, and planning for the general social life of the whole school. In some places student committees serve jointly with faculty committees on such an important problem as curriculum revision. Students welcome the opportunity to co-operate with teachers in trying to find solutions to the most difficult sorts of problems, and their contributions are invaluable.

The most significant aspect of student sharing in the Thirty Schools is to be found in the classroom. In schools generally pupil participation has been limited to affairs elsewhere. At the door of the classroom the student entered into another world in which he did more or less well what he was told to do. "Why," teachers asked, "shouldn't the students take an active part in planning the work to be done? After all, they are the ones most concerned." Not in all classes, but in many of them, the democratic principle of sharing has become established in practice. Pupils join with the teacher in deciding what goals are to be sought, in selecting the steps to be taken to reach the desired ends, and in setting up tests or measures to find out whether objectives have been reached.

This change in the pupil's place in the general life of the school and in the classroom enhances his sense of his own worth, develops his habit of responsibility, and challenges

the most vigorous use of his intelligence. A notable example of such results is found in one of the schools of the Study. When the Student Council learned that the faculty was studying the democratic way of life in relation to the work of the school, the Council members embarked upon a study of the same topic. Out of this study there came a statement entitled *The Philosophy of the Student Council.*[10]

In this remarkable document the young men and women of the Council set forth their own concepts of democracy and proposed steps which the Council and school should take in order to achieve a more satisfactory school-society. They stated that "there are two fundamental aspects of democracy which are generally accepted. First, democracy is based upon respect for the worth of the individual. . . . Second, democracy is a theory and a system for co-operative living." Then the council listed the ways in which they could promote individual welfare throughout the school, develop more opportunities for social relationships, ease financial burdens for those whose participation in school affairs was limited or denied because of lack of money, increase voluntary obedience to necessary regulations, encourage participation in public affairs, and develop in all students respect for the rights and opinions of others. These high school youth were thinking as seriously as their teachers were, and they felt as deeply their responsibility for the welfare of the school.

No one of the Thirty Schools has yet achieved democracy in every phase of its life. They are not complacent; they are still striving for clearer understanding and better ways, but they know more surely where they are going than they

[10] New Trier Township High School, Vol. V, *Thirty Schools Tell Their Story.*

did eight years ago. They have progressed in making the general life of the school consistent with the democratic ideal. In administration, in home and school relations, in the roles of teachers and students the American dream is finding greater realization.

The spirit of adventure which gave a tingle of excitement to the work of the early years grew less and less as the teachers came to grips with the difficult problem of translating an inspiring ideal into daily practice. They had "mounted up on wings as eagles"; soon they had to have the fortitude to "walk and not faint." The next chapter tells the story of their struggle with the great daily problem of what to teach and how best to teach.

Chapter III

THE CURRICULUM HEEDS THE CONCERNS OF YOUTH

By this time the reader is probably asking, What changes in studies did the Thirty Schools actually make? Is the work of the classroom really different from what it was before the Study began? If a visitor were to happen into one of these schools, would he soon know that something new was afoot?

Traditional Subjects Gain New Vitality

It must be confessed that a stranger would need some time and insight to discover in some of the schools anything significantly different from what he would find in any live high school. He would almost certainly note an atmosphere of friendly, informal co-operation and many changes in ways of teaching, but the subject matter might seem to be the same as always. He would observe classes in science, foreign language, mathematics, history, and English as elsewhere; but investigation would probably reveal many departures from the conventional content of these courses. For example, the science class might be studying the technique of solving problems, not only in the field of science but in many other phases of life. The class in Spanish might be investigating the influence of geography upon the life and character of South American peoples. The group in mathematics might be applying principles of logic to an analysis of a local problem of housing or conservation. The class in

history might be drawing up a statement for the next school assembly, outlining the issues involved in the annual election of student leaders. The English class might be analyzing recent newspapers and magazines to discover ways and means by which propaganda molds public opinion.

The visitor would find, of course, that the worthwhile content of traditional courses had been retained, but he would learn that the teachers had re-examined their work in the light of clearer purpose and that much new subject matter had supplanted that which had ceased to be of interest or value to students. An illustration of enriched content of traditional subjects is found in one school's report on its work in Latin. This school writes:

> Latin forms and grammar were never taught here for their own sakes but instead for the purpose of reading Latin as readily as possible. . . . Already much effort was expended on English derivations from Latin words and roots. This concern with English vocabulary now has become one of our major interests in these first years of Latin. As much time is expended on this as on the Latin itself.
>
> . . . . . .
>
> Finally the content of these courses is based on reading of material of some significance to later work in history and other subjects. It is not . . . a year (or two) on Latin forms, grammar, sentences, and idioms followed by a year of Caesar. We long ago reduced the Caesar content to a half year and selected material of real use: the stories of his crossings into Britain and his accounts of Gallic and German customs, et cetera.
>
> For a number of years, the material to be read in the junior Latin class . . . has been the subject of searching experiment. It is years since such stupid material as the Catiline Orations has even been looked into. We use the best parts of three ably written and edited texts of Latin writers. . . . We read a number of Cicero's letters—twenty or twenty-five—and about the same amount of material from Pliny's letters in the early Christian

period. We chose essays, anecdotes, philosophy, political and legal speeches; and—most interesting of all—the first two and a half months of the junior year are spent on a fascinating and interesting period in Cicero's legal career. . . .[1]

Here one finds many changes from the traditional first year of grammar, second year of Caesar's Commentaries, and third year of Cicero's orations.

It would be discovered, also, in some schools which seemed to have changed only slightly, that each older student was engaged in a serious, independent, long-time investigation of some topic of his own choosing. One school advises selection of a topic which requires personal investigation, interviews, and work with one's hands. The report of the investigation is not always in writing; it may take form in an art product, in a musical composition, an original play production. Schools report investigations dealing with the Maine coast in literature, Philadelphia housing, examples of good and bad thinking ranging from a Supreme Court opinion to a vitriolic editorial, American Negro poetry, plans for a modern house, making a motion picture on conservation, co-operatives, community health, and numerous other subjects of genuine student concern. The schools in which these extended investigations and elaborate reports are encouraged emphasize their value as experience in methods of elementary research and in seeing a long, hard task through to completion.

The visitor would find in many of these more conservative of the Thirty Schools somewhat less *required* work in foreign language and mathematics; but some students, having marked aptitude and interest in these studies, go far beyond requirements and enter college ready for sophomore work in these fields. More opportunity is provided for study of the

[1] North Shore Country Day School.

natural and social sciences and the arts, including public speaking, dramatics, home economics, and industrial arts. There is also greater provision for continuing subjects for more than one year. Because most colleges would allow only one entrance credit in chemistry, for example, the secondary school limited that subject to one year. Now the student with special scientific bent often has a second year of chemistry before going to college.

These and other changes in content of courses have been made in the schools which have taken least advantage of the freedom granted to participants in the Study. They may seem of minor importance, but no one can fail to be impressed by the testimony of principals and teachers in these schools. They say emphatically that changes run deep, far beneath anything which casual observation can discover on the surface. One school writes, "There are few if any of our classrooms which have not been enriched and invigorated from the participation of the school with the Experiment." Another reports: "It will be seen that our set-up is essentially traditional, but a great change has come in the spirit of teaching. In certain subject areas little progress has been made. In others much progress has come about. The school has grown educationally and spiritually during the years of the Study."

Barriers Are Broken Down

Thus far in this chapter an attempt has been made to indicate the kinds of subject-matter change in the participating schools which departed least from convention. In presenting now the more marked innovations which were made in other schools, it is realized that it is impossible to place the schools in sharply divided groupings. This has been attempted more than once, always with unsatisfactory results.

Schools, like persons, possess so many various characteristics that any classification almost surely gives a false and distorted picture. To see any one of the Thirty Schools clearly the reader should turn to Volume V of this Report, *Thirty Schools Tell Their Story*, where each school has given an account of its own experience in the Study.

Although no definite grouping of the schools is possible, departures from the conventional high school program have been much greater in some than in others. The visitor who might have difficulty in discovering change in some of the schools would realize at once that distinct innovations had been inaugurated in others. In all probability, finding himself with a teacher and class, he would be unable to recognize the subject as Physics or Chemistry or Biology. Certain facts of physics and chemistry and important principles of biology are used in the work going on, but the center of organization is something other than the internal logic of any "subject." Teachers and students are driving at something more important to them than learning the content of physics, chemistry, or biology. What is this more important goal? It may be that they are investigating the effect of certain vitamins upon growth, or how and why the city keeps its water supply pure, or the nature and effect of certain kinds of artificial lighting. The immediate purpose is satisfaction of the pupils' desire to know and understand; but the larger purpose may be to develop habits of critical thinking and intellectual honesty, to search for true cause and effect relationships. In conducting the investigations the class draws upon physics, biology, and chemistry, using facts and principles, regardless of the specific subject or division to which they logically belong.

To illustrate specifically, the following quotation is taken from the report of one of the public schools:

Science gives man, first, a knowledge of himself and his relationship to other living things; then knowledge about the physical universe in which he lives; and last of all, some conception of his place in this universe of time and space.

We have divided our science sequences in the three years into those aspects which concern all individuals, not just those who are to be specialists in some scientific field. In the tenth grade we study the human body, its nature, its functions, its evolution; in the eleventh grade we center attention on the nature of the environment and the uses man has been able to make of natural forces . . . ; in the twelfth grade, we consider the relationship of man to his universe of time and space, including in our study the development of man's knowledge of the earth and other bodies in space, with particular stress on the constant change that is going on in the universe. . . .

In the tenth grade, activities are deliberately anthropocentric and are focused on the personal life of the individual adolescent boy and girl. These activities concern the daily life experiences of the student, from the diet of the athlete, to the responsibility of the individual for the health of the community. . . .

The eleventh grade course involves a survey of the physical environment and an intensive study of some aspects of the nature of matter, of the changes in matter, chemical and physical, and of the nature of the various energies—heat, electricity, energy waves, both sound and radiant. It includes also a study of the uses man has made of the forces of nature, the effect of these applications of his knowledge on the life of our day; the possibilities of changing still further many conditions of life by further discoveries of the mysteries of matter and energy.

The twelfth grade course begins with an exploration of time and space—the macrocosm—and with a critical evaluation of the methods and limitations of science. It includes the study of the nature of the earth and the changes in its surface and in life forms; the atmosphere . . . ; the moon; the planets and their satellites; the sun . . . ; the frontiers of science.

Understandings such as these should result in an appreciation of the interrelatedness of the fields of science; a willingness to experiment and to accept the conclusions reached from experi-

ments; a critical attitude toward authorities; an attitude of suspended judgment; recognition that all theories are tentative and all truth relative; an awareness of the possibilities open to man through his understanding of the laws of life, and an abiding sense of his dependence upon the creative force which lies beyond and above his reach and his vision.[2]

Some of the participating schools are committed to this broad-field type of curriculum. The field of science has been used here for illustration, but this same principle guides in determining content and organization in all other fields. Instead of studying meticulously separated courses in arithmetic, algebra, geometry, and trigonometry, the student learns the mathematics involved in the solution of the problem in hand. So, with other fields similarly organized, the curriculum consists of the broad fields of science, mathematics, language and literature, the arts, social studies, health and physical education, instead of the numerous "subjects" of the usual high school curriculum. The advantages and possibilities of this plan are presented forcefully in the Report of the Progressive Education Association's Commission on The Secondary School Curriculum.[3]

Almost all the schools were trying from the beginning of the Study to find ways of breaking down the artificial barriers which unfortunately separated teacher from teacher, subject from subject. Lowering or eliminating sharply dividing barriers within a broad field such as science, mathematics, social studies, was not uncommon in schools generally. But many of the Thirty Schools and some others attempted to go further by breaking down walls that separated broad field from broad field. Sometimes attempts were made to combine science and mathematics. This plan was

[2] Bronxville High School, Vol. V, *Thirty Schools Tell Their Story.*

[3] V. T. Thayer, Caroline B. Zachry, Ruth Kotinsky, *Reorganizing Secondary Education,* D. Appleton-Century Company, New York, 1939.

usually abandoned early, for it was found that the relatively meager mathematics content needed in the usual high school science courses could be quickly taught when needed and that the attempt to unite the two subjects had no sound basis. The plan most frequently tried was the fusion of English and the social studies. This combination, with the arts sometimes included, proved to be more satisfactory and profitable. A few schools have found ways to fuse English and social studies into genuine unity, but some schools abandoned that scheme because of difficulties of organization. Usually the obvious and accustomed chronological organization of history became the basis of organization of the unified courses. Soon it was discovered that English became "the handmaiden" of history, that the literature of some periods was too scarce to warrant spending much time on it, and that it became necessary to resort to artificial integration which was deemed worse than the evils which fusion sought to eliminate.

Many teachers began to suspect that there was something fundamentally wrong in attempting to "put subjects together." They were sure that the vicious divisions which kept teachers and students from discovery of the underlying unity of all knowledge should and can be eliminated, but they were equally sure that a deeper and sounder foundation for integration must be established. The visitor would have found in 1933 enthusiasm for fusion of subjects, but had he come again in 1936 he would have found doubt, discouragement, and search for something better.

Students Learn the Ways of Other Peoples

In more recent years the visitor would have discovered in several schools that a whole culture had become the subject

of study. Teacher and students together had decided to try to see and understand life in the Eastern Mediterranean about 500 B.C., France of the thirteenth century, or Mexico of the last twenty years. Of course, no complete or exhaustive study of any culture is possible by high school students, just as no complete or exhaustive study of Greek life is possible in the conventional course in ancient history. However, by investigating the ways in which a people got their daily bread, provided their clothing and shelter, organized their communities, dealt with offenders against the common good, educated their youth, defended themselves against their enemies, amused themselves, and conducted their home life, the high school student identifies himself with the people studied and becomes one of them for the time being. Above all, he enters into the thought and ideas of the people he is studying. By reading what they wrote, by understanding what and how they worshiped, and by seeing the products of their self-expression in art, the student begins to know, in a truly significant way, a civilization that is related in many ways to the culture of his own place and time.

One school in its unit on China studied "Chinese poetry and drama, modern books about China, Chinese painting, sculpture, ceramics and architecture. . . . The class was privileged in having personal experiences with Chinese people, as for example, Mme. Lin Yutang, wife of the Chinese philosopher, Chinese dancers and musicians, and Chinese students . . . who talked with the class about the problems which the Chinese people now face."[4] In a neighboring school a class "spent eight to ten weeks being Greeks. . . . They did not merely study Greece; they were Greeks. They lived, worked and thought as Spartans, Athenians, Corinthians, Syracusans, Thebans and Milesians. There was no

[4] Horace Mann School.

costume play acting. It was their minds that they 'dressed up,' and the major problems arising out of Greek life were immediately given modern American application. One question, for example, which occupied the group was why there had never been a United States of Greece, although there had been a Greek democracy."[5]

The schools which have developed this Culture-Epoch type of course emphasize the importance of relating the study constantly to our own life and time. The common problems of life must be faced by every people in every generation. America faces them today. Are we solving them more wisely than other peoples did in other times?

No wonder the visitor to a class which is exploring a culture finds it impossible to identify the "subject." It is language and literature, art, music, civics, history, economics, mathematics, science, and more. No one teacher is fully competent to lead the class in the exploration of all the major aspects of any culture. Therefore, the visitor may be surprised to find two or more teachers collaborating in guiding the work. He might learn that every department of the high school is involved before the study is finished.

Careers Shape the Curriculum

In preference to the study of cultures, a few schools hold that the student's predominant interest in a career provides a sound basis for genuine integration. Each boy and girl is encouraged to find "some field of human activity in which he takes a special interest, for which he feels he has special aptitude and in which he sees adults earning their living in the real world outside school. These fields may be concrete—

[5] Lincoln School, *Democracy's High School*, Bureau of Publications, Teachers College, Columbia University, 1941. See also *Six Greek Cities* by B. J. R. Stolper and Henry C. Fenn, Bureau of Publications, Teachers College, Columbia University, 1939.

fine arts, business administration, pre-engineering, euthenics —and they may be as conventionally intellectual as mathematics, French, Greek or history."[6] For the student whose vocational interest is art, science obviously becomes significant in relation to his career. Other subjects take on new meaning as he sees their implications for his work. This desirable result is obtained only when the program of studies is arranged so that adaptation of work to each individual's predominant interest is made possible.

The visitor who wants to see all the members of the senior class of a certain participating school[7] would have to travel all over town, for many are at work in various places and occupations for two weeks at a time throughout the senior year. They are working at all sorts of jobs, from general clerking to pattern making. These are students who are not going to college. They are trying to make places for themselves in the economic life of the community. The school is trying to help them, first, by arranging for experience on the job; second, by relating their school work to their out-of-school experience. In school they are studying labor unions, collective bargaining, social security, old age pensions, unemployment insurance, housing, hospitalization, propaganda, possible uses of leisure time, crime, intelligent buying, and numerous other topics directly or indirectly related to their future work and citizenship in the community. The employer reports to the school concerning the pupil's native ability in the work he is doing, his progress, adaptability, initiative, politeness, ability to get along with fellow workers, willingness to take advice and orders, ability to work independently without waiting for suggestions, and desire to

[6] Fieldston School, Vol. V, *Thirty Schools Tell Their Story.*

[7] Radnor High School. For complete details, see report of Radnor High School, *ibid.*

learn and advance. These reports combined with school reports provide the basis for genuine guidance and profitable conference with the student and his parents. School studies come to focus on the student and his career. English, social studies, mathematics, science, the arts are no longer isolated fields of doubtful value. They become related sources of knowledge and understanding as they contribute to the student's purposes of making a living and doing useful work in which he finds growth and satisfaction.

The Common Problems of American Youth Become the Heart of the Curriculum

If the reader could spend a year in the Thirty Schools, he would doubtless linger in certain ones where other strange things are going on. There he would see a group of boys and girls meeting for two hours or more every day with the same teacher. The chances are that they have been meeting thus with this teacher for two, perhaps three, years. What have they been doing with all this time together?

Let us suppose that this is a class in a Denver high school. The teacher has been studying and planning for a long time with other teachers from his own school and from the other 14 junior and senior high schools of the city. Together they prepared for the "core curriculum." Although the teacher and his classes would plan together for their work and make final selection of the topics to be studied, the following quotation from the Denver report indicates the range and wealth of possibilities of their work:

> In order to understand the kinds of experiences which the core curriculum attempts to provide for high school pupils, one must recognize that the program is concerned with a continuous attack upon the problems which are persistent in the lives of adolescents as members of a democratic society. Units developed around such significant problems become the program of studies.

Each unit is an organization of experiences, with a beginning, a development, and an end. Each unit has a central idea to which the experiences chosen are related. The problems or areas of activity listed below are those which have been used by all five senior high schools in planning units for the core program. No one high school has attempted to cover them all; but during the last three years of the Study, units in every area have been developed somewhere in the system. No attempt has been made in Denver to allocate these units finally to any grade level. They have implications for sophomores, juniors, and seniors. The emphases of the unit developed to meet the problem depend upon the needs, interests, and capacity of the group of pupils who are concerned, the resources available, and the creative ability of the teacher or teachers who direct the study.[8]

Space does not permit more than a sampling of the extensive list of activities which comprise this program.[9] However, the following problems, "arranged according to areas of living, are indicative of the character of the work undertaken in the various core curriculums of Denver."

A. Personal Living
   1. Understanding ourselves through
      a. Discovering our interests, aptitudes, and powers
      b. Measuring the extent of our information in important areas of knowledge
      c. Analyzing our use of time and effort and planning for more constructive ways of living
      d. Becoming aware of our vocational interests and general vocational aptitudes
   2. Developing interests and appreciations which we already have and exploring others in such fields as
      a. Reading
      b. Gardening
      c. Painting, modeling
      d. Singing, dancing

[8] Denver Schools, *ibid.*
[9] For complete list, see Denver report.

e. Nature study
f. Physical sciences

3. Developing maturing appreciations of the resources which make life worth living, in
   a. The creative expression of others in the fields of plastic-graphic arts, music, drama, literature, etc.
   b. The world of nature and science
   c. Learning how to make the most of ourselves in appearance, poise, and social adequacy, through emphasis upon health, grooming, cleanliness, order, and fitness
4. Developing a philosophy of life.

B. Immediate personal-social relationships
1. Orientation to the school through
   a. Becoming acquainted with the pupils in the group and with those who are leaders in the student life of the school
   b. Becoming acquainted with the teachers and administrators
   c. Considering the meaning of education in a democracy
2. Exploring the problems of living in a modern family through
   a. Determining the responsibilities of every age group in such a relationship
   b. Considering the economic problems of the home and the budgeting and spending of the family income
   c. Studying the origins of family standards, traditions, and beliefs
3. Studying the problems of human relationship, including
   a. Boy-and-girl relationships
   b. The personal problems of boys
   c. The personal problems of girls
   d. The nature and obligations of the small groups to which one belongs
4. Surveying and evaluating activities and resources for recreation of the family or small group

C. Social-civic relationships
1. Knowing the community through a study of such areas as
   a. The history of the city and its racial character

b. Government of the city, including taxation . . . and the like
c. Providing for the cultural growth of the people through libraries, symphony societies, museums, schools, and the like

2. Discovering the unique characteristics of American democracy and comparing them with the other methods of political and social organizations of the world . . . This would include a study of
   a. The documents of democracy
   b. The lives of our democratic leaders
   c. The place of minority groups in the nation
3. Facing and attempting to help in the solution of social problems
4. Gaining some grasp of international relations and what it means to be a citizen of the world, with emphasis upon the current scene
5. Learning how public opinion is formed and the sources of information upon which we tend to rely

D. Economic relationships
1. Studying ways in which clothing, shelter, food, water, and power are produced and distributed
2. Recognizing and learning how to deal with consumer problems
3. Realizing the impact of machine production upon living and the possibilities of improving living conditions under a machine civilization
4. Studying the conflicting economic systems of the world and the various ways of providing for production and distribution
5. Studying the vocational opportunities in the community and the nation and studying the individual's special abilities and capacities in terms of a vocation
6. Studying the problems of employment in
   a. Training for a job
   b. Applying for a job
   c. Employer-employee relationships
   d. Finding the cultural aspects of vocational life

With topics such as these our teacher and his boys and girls have been engaged. The visitor will note quickly that they are unusually busy. As he examines the program for the core curriculum, he realizes that it has substance, that here are topics of great import to youth which would challenge their best abilities and their powers of hard, continuous effort. Of course, they could not study all topics that are suggested. They have selected according to their developing concerns and needs. They have read, explored, investigated. Together they have searched for knowledge and understanding.

As this new work developed, it became necessary to find some term to designate it. Since it was not just English or social studies or science, but all of these and more, it could not be called by any of the conventional subject names. Some schools began to use the terms "Stem Course," "Basic Course," "General Education," but more adopted the designation "Core Curriculum." None of these terms is entirely satisfactory, but General Education and Core Curriculum, terms most frequently found in the school reports, are used here synonymously.

After the visitor has found out what a group of students do together with one teacher two hours every day for two or three years, he will doubtless attempt to learn what these boys and girls do with the rest of the school day. Usually high school pupils are in school about six hours. What do they do with the other four?

That depends upon the individual. All students share in the units of study which comprise the core or general education course. For the rest of his work each student's program is his own. From the whole range of studies offered by the school, choice is made of what is best for him. It should be emphasized that the student does not select his

courses haphazardly or on his own responsibility. There have been frequent conferences involving student, parents, and advisor. Their combined wisdom is brought to bear upon the planning of the student's program.

For one individual, in addition to his two hours of "general education," there may be courses in shop-work, mathematics, and English; for another, the four hours may be given to work in foreign language, science, and one of the arts. A third, being a slow worker, may need more time for study, so his additional work may be limited to English and mathematics. These individual programs change from time to time as certain needs are met and others develop. Always the student has the guidance of his "core" teacher, not only in choosing subjects of study and various sorts of student organizations, but in matters of more intimate, personal nature.

These, then, are the types of curriculum revision the visitor would find in the participating schools. In some the changes are limited to the content of conventional subjects. In others new content is found in the broad fields type of curriculum. In still others the new content is included in the study of whole cultures. New subject matter is introduced in some schools to promote the student's predominant career interest. The most marked innovations are found in those schools which have developed core curriculums. Strict classification of every school into one of these five groups is impossible. Several schools, for example, have developed the core curriculum, and, at the same time, have modified the content of conventional subjects. Since the schools were free to inaugurate new programs of study, naturally differences among them resulted.

Other Curriculum Developments

Although there are differences in emphasis and in the nature of the new subject matter, one finds in all the member schools other curriculum developments designed to serve purposes which every school deems important.

Youth Study and Share the Life of the Community

First, the school is drawing close to its community. More and more time is given by every school to exploration of the physical and human resources of the places in which the students live. What the community does and how it functions are subjects of direct, first-hand study.

One of the Thirty Schools states that "the value of the community as a vast reservoir of social, cultural, vocational, economic, industrial, and recreational resources is steadily gaining the attention of secondary education in California.[10] Visits to newspaper plants, factories, farms, libraries, museums, social-service and governmental institutions are common practice in schools generally. To be of greatest value, the Thirty Schools have found that such first-hand investigations should be part of a well-planned study with definite purposes clearly understood. In one school, located in Boston, the work of the ninth grade centers upon the study of the history and present life and problems of that community. "We use the city we live in," they say, "as a kind of demonstration laboratory for elementary economics, civics, science and architecture."[11]

Another school has carried first-hand study far beyond the boundaries of the local community and reports as follows:

A week end proved necessary for senior high school students

[10] Eagle Rock High School, *ibid.*
[11] Winsor School, *ibid.*

to study certain geological phenomena beyond Manhattan. The longer time proved equally valuable for glimpses of rural economy. Eight days at the height of a congressional fight in Washington were barely enough to introduce juniors and seniors to certain aspects of our federal government. A week's trip proved an effective experience for twenty-five ninth graders in New England country life in the spring; eight days were used when fifty ninth graders participated in farm activities as the Berkshire farmers prepared for the winter. Eleven days were spent by fifty twelfth graders traveling nineteen hundred miles to study the socio-economic planning of the Tennessee Valley Authority and of certain government and co-operative enterprises in Georgia, North Carolina, and Maryland. About the same length of time permitted an industrial study in the bituminous coal fields of West Virginia. In all these recent enterprises, as much participation as possible has been included with observation.[12]

That last sentence suggests a related development: participation. Study of the community often creates a strong desire in young people *to do something* about conditions which they have discovered. Usually, however, they find their hands tied—they can discover no way in which they are permitted *to act.*

The Thirty Schools have recognized this need of youth to do something useful in the adult world. One school reports[13] that, in connection with the study of recreation in the community, a group of students representing the six class sections of the high school made a tour of four of the city parks. On the trip damage to park property was noted. Previously smaller groups had visited these parks and listed the improvements needed in each. Following discussion, a program of action was agreed upon, and each class section elected a member to serve on a park committee.

The committee drew up a letter to the Park Superintend-

[12] Lincoln School of Teachers College, *ibid.*
[13] Daniel Webster High School, Tulsa.

ent pledging to protect park property and asking for the improvements which had been agreed upon as reasonable. A number of conferences with adults and with several adult organizations followed. The co-operation of these groups with the students and the Superintendent of Parks resulted in these improvements: putting tennis courts in good playing condition, installing new playing equipment, making new softball diamonds, putting in new horseshoe pitching grounds, and planting shade trees.

In a somewhat different realm, students in another school have taken responsible leadership in certain community affairs. This school writes:

> During the study of a unit of War and Peace in the senior Enterprise, the students wishing to "do something about it all" decided that they could perhaps be most effective in the area of creating, or moulding, public opinion and prepared a program involving some drama and an explanation of world conflicts through the use of maps, which they presented to school and adult audiences totaling approximately three thousand people. . . .
>
> Students also have attended adult conferences in Philadelphia which have been held on the subjects of housing and peace. They have from time to time been invited to neighboring women's clubs to conduct discussions concerning such subjects as Americanism, relations of movies to education, and ways and means of educating for peace. They have also been attending both the adult sessions and the school round-tables of the Foreign Policy Association.[14]

The Schools Help Young People Get Ready to Earn a Living

Besides greater use of community resources and increased participation by students in local affairs, all the member schools are concerned with the problem of preparing young

[14] Friends' Central School, *ibid.*

people to earn a living. In the private schools, which send almost all graduates to college, this problem is not as immediate or insistent as it is in the large public school. However, the student who goes to college with a well-defined vocational interest profits thereby, even if he changes his choice of career while in college.

The reader will recall the fact that of six who enter junior high school three drop out before completing senior high school; and of the three who graduate, only one goes on with formal schooling. For five out of six, then, getting a job upon leaving school is the number one problem. For millions of them there were no jobs. There were few places for them in our economic life. The nation's defense program now provides work for them. They are needed now. Will they be needed when our defenses are completed? Whatever employment conditions are at any time, the school admits the inescapable responsibility of helping all six—the five as well as the one—to prepare for economic self-support and useful service to the community.

Few schools anywhere have met this responsibility fully. All of the Thirty Schools have developed more effective procedures in vocational guidance. In many places this includes the study of vocations, conferences with leaders in various occupations, and direct investigation of conditions under which men and women earn livings. One school holds an annual three-day conference on vocations in which pupils, parents, and teachers participate.[15] Another, a large public high school, arranged for each senior to work each afternoon for six weeks in the vocation which he hoped to follow.[16] Students left school at noon and worked until closing time on the job. Their school work was related as closely as possible to the job experience. In most cases this work experi-

[15] Dalton School, *ibid.*
[16] South High School, Denver.

ence confirmed students in their vocational choices, but for some it served to reveal lack of aptitude or distaste for the chosen work, thus making possible another choice before it was too late. A somewhat similar plan, cited previously in this chapter,[17] helps students in another of the Thirty Schools to find jobs before leaving school.

One of the most thorough-going curriculum developments designed to help young people get ready to earn a living is found in a public high school[18] which sends less than 20 per cent of its graduates to college. A faculty investigation revealed that all the others were under the necessity of getting jobs promptly. The teachers learned also that almost all graduates of earlier classes had married within three years after leaving school. With these facts before them, the teachers declared that the school must prepare these boys and girls for the two great steps just ahead: making a living and establishing a home.

The result was that the study of these two topics became the core curriculum of the senior year. The problems approach was used and the units of the course were stated in the form of student questions, such as,

How do men and women earn their living in this city and region?

For what general field of work am I best fitted by ability, aptitude, and interests?

How does one go about getting a job? How can I hold one when I get it? What causes failure?

How can I learn and grow by means of my job?

What shall I do with the money I save?

How can I use my free time profitably without much cost?

[17] Pp. 56-57.

[18] High Schools, Oakland, California.

Other questions relative to marriage and home are considered and the concluding unit is "Finding Meaning in Life."

To find answers to their questions the boys and girls made first-hand investigations in the community, consulted authorities, and read extensively. The reading lists contained many books for pupils of limited reading ability, but it included, also, many mature volumes that would challenge the best thought of the ablest high school student.

Instances such as these that have been cited indicate the importance which the Thirty Schools attach to vocational preparation. Some of the schools have taken the position that the work of the secondary school is not completed until each student is satisfactorily established in employment or in college. To achieve this they are ready to continue to serve youth in many ways far beyond the usual time of graduation from high school.

Gifted Intellects Are Stimulated and Challenged

In their concern for all pupils, the schools of the Eight-Year Study have not neglected the student who is endowed with high qualities of intellect. The gifted intellect is challenged as never before. Because of the freedom which the participating schools have had for eight years, they have been able to adapt their work more appropriately to individuals. They have realized fully that many literary, scientific, and professional fields require intellectual equipment and discipline of a very high order. The schools have come to see more clearly than ever that potential leaders must become, in greater numbers, actual leaders in the various aspects of the intellectual life of the nation if it is to survive and flourish.

The schools in the Study have tried to find better ways of developing the habits of mind and qualities of character upon which high intellectual achievement in any field depends. As soon as the gifted student's major interests and abilities indicate what his field of work is likely to be, the school provides opportunity for him to lay the essential foundations of knowledge and skill. The schools have encouraged students to engage in elementary research which demands careful discrimination, to follow the leadings of a subject, to explore new fields of thought. Moreover, they have provided time and facilities for students to do these things. Without permitting over-specialization, the student is encouraged while still in high school to develop his special interests and abilities far beyond the usual secondary school level.

To meet fully the needs of these able students, alterations in the curriculum are often necessary. In some cases it is expanded to include geology and astronomy in the field of science, Greek in language, unusually mature works in literature, and courses in higher mathematics usually reserved for college. In other cases gifted individuals are provided greater opportunity to develop mature appreciation and high quality of creative expression in the arts. Able students often develop the power of self-direction and independent study long before graduation from high school. Many of the schools do not hesitate to give such students a large measure of freedom. They are frequently released from some of the usual requirements and permitted, to some extent, to make their own curriculum.

The Thirty Schools know society's need for intellectual leadership in all walks of life. They are striving for better ways of discovering, fostering, and developing unique powers of mind. Above all, they try to lead the gifted indi-

vidual into full realization of his social responsibility so that his strength will be used, not for selfish gain, but for the common welfare.

The Arts Belong to All the People

The "artistically gifted" were the only ones who had a chance for experience in the arts in the traditional secondary school, and that experience was distinctly limited. In the Thirty Schools the arts now occupy a much more important place. One school emphasizes that its major course in art and its major course in music are "comparable to the work in any academic field" and are "offered for entrance to college on a basis equivalent to that of any academic subject."[19] This school continues:

> In some ways more important than the advanced work carried on by those preparing for professional training or for presenting art as a subject for entrance to college is the creative use of art by practically all pupils in connection with their other activities. The teachers in this department use every opportunity to relate their work to what is going on in the other departments, and the pupils themselves, with the encouragement of teachers in other fields, use their arts and crafts to enrich and give meaning to whatever they are doing.[20]

Other schools, also, are convinced of the value of the arts for all students and have provided time in the program for them. One school reports:

> Teachers of secondary school art in Des Moines do not conduct their classes merely for the talented few. They believe that those who build, who design furniture, cars, locomotives, dresses, cooking utensils, etc., are often greater artists than the creator of easel pictures. . . .
>
> Art students have participated in a great variety of projects:

[19] Beaver Country Day School, Vol. V, *Thirty Schools Tell Their Story.*
[20] *Ibid.*

doing murals; experimenting with color; making masks, stage-set designs, and costumes; designing panels for class parties; decorating plates and platters; block printing and screen printing Christmas cards.

Some of the stores of Des Moines co-operate with the art classes. Once a year they hire two or more high school artists to draw for the ads in the newspaper. Twice a semester art students co-operating with salesmanship and merchandising students, draw and compose the ads for the school newspaper.[21]

Another school likewise emphasizes the opportunities provided in the arts for students not necessarily "gifted" in them. In a discussion of courses closely associated with the core curriculum, the following is said about the arts:

In one core course three weeks spent in exploring special interest fields such as crafts, games, dancing, painting, drawing, and clay modeling produced such an enthusiasm for creative manual activities that during the next year new semester courses were offered to meet the demand. In this high school and in others, such exploration of special interests had led to increased enrollment in home economics, in industrial arts, in machine shop, and in mechanical drawing. . . .

Closely associated with the developing core curriculum is the open laboratory in the arts which is set up to meet the needs of pupils who are not necessarily "talented," or who have not time to take a semester course. Pupils who wish to make class contributions in some form other than writing find the art laboratory a welcome resource. In addition to opening a general laboratory for the needs of many different kinds of pupils, new classes have been formed in commercial art, stage design, drawing, painting, and art expression in many media for advanced students.[22]

This increasing emphasis upon the arts in their various forms is the result of clearer understanding of their importance in the lives of young people. Teachers who are close to youth say that

[21] Des Moines, *ibid.*
[22] Denver Schools, *ibid.*

1. Experience in the arts gives most boys and girls sheer enjoyment.
2. Through making something with their hands students express themselves in media other than words. This gives genuine satisfaction especially to the one to whom words do not come easily.
3. By doing, as well as by reading or listening, young people gain great satisfaction and grow in strength and self-reliance.
4. Creative self-expression often provides release from emotional tension and promotes mental and emotional balance and health.
5. Understanding and increased enjoyment come best through experience in self-expression.
6. By discovering through experience certain problems in any one of the arts and trying to solve them, the pupil becomes a keener observer of professional works and has greater appreciation of them.

These and other values are all emphasized in this statement by an arts teacher[23] of unusual insight:

I see over and over again the need for self-expression. The change from indifference to vivid interest when the student changes from the passive to the active in a learning situation is inescapable. Moreover, in teacher-pupil planning groups the students themselves recognize this need—"This term's art survey was better than the last one because the students talked and took part, instead of just listening." In dramatizing and acting one can see eager satisfaction as this need is met.

Also, self-expression in creative ways satisfies the needs of the imagination. This need is not found in the so-called "creative type" of student only.

Self-expression then, as I have seen it, satisfies the need to be active instead of passive, and also to say or paint or dramatize one's imaginings.

Youth Search for Life's Meaning

Along with the urge for expression by doing, youth are seeking some sure foundation for purposeful living. Every

[23] Mabel D. Ely, Shaker High School, Shaker Heights, Ohio.

study of adolescent concerns reveals youth's need to find meaning in life. Some express this desire more freely than others, but it seems to be a deep-seated concern of all young people. They feel the mystery of the universe. Their thoughts dwell often upon birth, life and death, eternity and immortality. They say they want something to believe in, "something to live by."

Most of the participating schools, in co-operation with home and church, are trying to meet this need. There are marked differences in their attempts to help young people to find meaning for their lives. Some teachers are able to help students with this problem through the subjects they teach. The English teacher draws upon literature for what others have thought and written about the meaning of existence. The science teacher helps his students to consider the facts and laws of science in relation to human life. The history teacher leads his students to inquire into the meaning of man's long struggle to survive and control his environment. Through these and other approaches students are sometimes able to develop a satisfying personal philosophy or point of view.

In some of the core curriculums there are units of study designed to help students reach their own tentative conclusions relative to the meaning of existence. A few schools, in response to student requests, provide for some study of religions by attendance at services in various churches and by discussions of beliefs with religious leaders. Three of the Thirty Schools were founded and are now conducted by religious societies.[24] In these schools and in a few other private schools, religious instruction is an essential part of

[24] Friends' Central, George School, Germantown Friends. For discussion by these and other private schools, see Vol. V, *Thirty Schools Tell Their Story.*

the curriculum. None of the schools attempts to impose a set of beliefs upon its students, but every school recognizes its responsibility for helping young people in their search for design in living.

Two Forces Unite to Determine the Curriculum

Perhaps the reader now has at least partial answer to his question concerning changes in the organization and content of the curriculum. But he may be asking, "How were these schools guided in determining the content of the curriculum?" Chiefly there were two criteria: the demands of adult society and the concerns of adolescents. The influence of these criteria varies from school to school and from teacher to teacher.

Some give great weight to analyses of what adults do. They argue that schools should know clearly the sorts of activities in which adults engage and the kinds of problems they have to meet. Then the work of the school, they say, should prepare youth to engage in those activities and to meet those problems. An excellent statement of social demands is found in "The Mississippi Program for the Improvement of Instruction."[25] Nine areas of human activity and problems of living are listed as the basis of curriculum construction: (1) Protecting Life and Health (2) Getting a Living (3) Making a Home (4) Expressing Religious Impulses (5) Satisfying the Desire for Beauty (6) Securing Education (7) Co-operating in Social and Civic Action (8) Engaging in Recreation (9) Improving Material Conditions.

This is one of several such lists of adult activity which have been widely used by schools in many states as the

[25] Bulletin No. 5, State Department of Education, Jackson, Mississippi.

guide to curriculum revision. An examination of the programs of the Thirty Schools reveals that they, also, have been influenced by the social demands of adult life.

The other criterion, adolescent concerns, has likewise influenced the participating schools. It was fortunate that results of the studies of the Commission on the Secondary School Curriculum[26] became available while the Thirty Schools were seeking solid-rock foundations for curriculum rebuilding. These studies asserted the importance of needs of youth as the source of the curriculum in this statement: "The purpose of general education is to meet the needs of individuals in the basic aspects of living in such a way as to promote the fullest realization of personal potentialities and the most effective participation in a democratic society."[27]

The emphasis here is upon the problems which young people face while they are still *young* people, upon the concerns of high school students while they are still in high school. At this age the student is concerned with such questions as these: What should I do to make a living when I leave school? How may I decide what I am best fitted to do? How should I prepare for a job, get it, and hold it? How may I become a self-sustaining, useful citizen? I want to become a person of recognized usefulness in the world of adults. How may I do this? How can I develop better relations with my parents and brothers and sisters? How can I help with the family financial problems? I need friends. What must I be and do to get on well with others? I don't

[26] *Science in General Education,* Progressive Education Association, D. Appleton-Century Co., 1938. *Language in General Education; Mathematics in General Education; The Social Studies in General Education,* Progressive Education Association, D. Appleton-Century Co., 1940.

[27] *Science in General Education,* p. 23.

understand myself. Why do I feel, think, and act as I do? Am I normal physically, emotionally?

I am a citizen of the United States. What are my rights and duties as a citizen? What is democracy? What does it mean? How is it better than other ways of life? I must be sure of something. What can I believe in? Is there any meaning in life? How can satisfaction in living be achieved?

It is obvious that these present concerns of youth reach out into the future. He realizes that he is becoming what he is to be. He has his problems which must be solved today, but he has other long-time concerns which carry over into the years ahead. He is thinking of himself as a man in the world of men and he wants to play a man's part when the time comes. But he is still a youth with youth's own immediate task of solving the exciting puzzle of growing up in a very perplexing world. None of the Thirty Schools would deny that preparation for the responsibilities of adulthood is important and that there certainly should be a long look ahead; but the business of living satisfactorily now at age seventeen is equally important, they say. Perhaps the best possible preparation for meeting the demands of adult life is to live successfully now at seventeen.

Guided by some such thinking as this, the Thirty Schools were convinced that both present needs of youth and adult social demands should be used as sources of the curriculum. Any attempt to derive the curriculum from only one of these sources, they said, would result in neglect of important values. Traditionally secondary schools in the United States have based their work upon custom or upon certain demands of adult life which have been accepted without much question. The Thirty Schools have re-examined society in an attempt to learn what adult life really requires of youth. At the same time they have tried to discover youth's common

concerns and to help them in their immediate perplexities. These studies have led to the core curriculum and to most of the innovations in the participating schools, whatever the plan of organization may be.

Changes in Ways of Teaching

It should be clear to the reader that no sharply defined body of new subject matter has emerged in the Thirty Schools, but its general substance and scope should be evident. Although the emphasis thus far in this chapter has been upon changes in *what* is learned, there have been incidental indications of changes in *ways* of learning. Innovations have involved not only the content of the curriculum, but methods of teaching as well. The two cannot be reported in complete separation, but attention is directed now to changes in the *procedures* by which the new work is carried on.

Democratic Processes Enter the Classroom

It is still possible to find here and there in the Thirty Schools the traditional practice of textbook lesson assignment and hearing of recitation. In such cases the pupil's problem is how to learn the lesson and recite it to the teacher's satisfaction. The "problem" may have no other meaning for him. It has been set by the teacher. The student has had no part in choosing it, and it may not touch his real purposes or concerns in any way. However, in most of the classes to be found in the Thirty Schools there is a fundamentally different relationship between teacher and pupil.

To one accustomed to the traditional classroom scene, many procedures in the participating schools may seem strange and without order or organization. Upon entering a room, one may find the teacher lecturing to the class, but

this does not happen often. One is more likely to see students working singly or in groups, moving about as the work in hand requires. The teacher may be at his desk holding one brief conference after another with individuals or with small groups. The chances are that he is going from person to person or from group to group as their work calls for his assistance or guidance. It is possible that the teacher is not in the room at all. He and some members of the group may be making an investigation in the library, laboratory, shop, or even downtown, but the work goes on in his absence.

It goes on because the students are working, not for the teacher or the grades he could give, but for purposes which they think important. The purposes are theirs as well as the teacher's. They have shared with him in selecting the goals and in planning the steps to be taken. They have taken time to consider together what to do and how to do it. This wise teacher has learned how to share honestly with his boys and girls in planning their work together. He has made the difficult change from authoritarianism to democracy, not only because more and better work is done by students, but chiefly because he knows that they should learn how to share responsibility and to co-operate in achieving objectives which they and he have set up. This is the way of democracy.

The teacher and class have been through some unhappy days and trying times together. In the beginning they "mulled around." Neither teacher nor pupils knew very well how to move ahead together. This was a new experience for all. Of one thing they are now sure—they talked too much. There was endless discussion of topics without the knowledge necessary to make discussion profitable. Students wanted to discuss these topics which were of such

vital concern. They had ideas and questions which they were eager to express. However, they began to realize after much talk that their ideas were "half-baked" and that some of their questions were unimportant, some could easily be answered by a little reading, and some could be answered by no one.

Gradually everyone, even the most talkative, came to realize that discussion may be boring and certainly futile unless facts are obtained, assumptions examined, opinion thoughtfully "arrived at," or conclusion clearly established. If the stranger should sit in on a group discussion now, he would find insistence on the part of the members of the class that the speaker should have something to contribute, that he should stick to the point, cite the sources of his data, and draw only such conclusions as the facts may warrant.

New Materials for Learning are Essential

When the class had had enough of talk and settled down to real study and investigation, they discovered that the information they needed was often hard to get. Seldom could they find a textbook which served their purposes. Perhaps out of a dozen textbooks they could gather valuable data, but they soon learned that libraries must be searched for all sorts of books, reports, bulletins, pamphlets. The materials collected in advance by the teacher were useful, but often essential knowledge was not to be found in print at all. This forced investigation away from the school building. Sometimes men and women came to the school to tell the class what it wanted to know, but more often the teacher and students went out into town and country to see and learn at first hand.

To find pertinent and accurate information on many of

the topics or "units" chosen for investigation was a pressing problem for the teacher. His resourcefulness was severely taxed. In this dilemma he was helped by attendance at Workshops[28] in the summer. Here, with other teachers having the same problem, he prepared for each unit a file of materials to be used by him and his pupils when the need arose. Thus he was partially prepared for the new work.

He turned eagerly to motion pictures and radio for further materials of instruction, and in them he found content of great usefulness. By looking ahead and planning carefully, the group could capitalize upon an important radio broadcast. Much more practicable, however, is the use of radio recordings which are becoming systematically available. The recording can be used whenever it contributes to the study of the topic at hand. Likewise, motion pictures can be used when the theme of the picture is pertinent to the study under way. The great possibilities of these two new means of learning are only beginning to be realized, but already the teacher and his students have found them invaluable.

As the new work has developed during the last two or three years, the teacher's file of materials for each unit has grown larger and richer. In fact, there is now so much in the file that no class can use all of it. This is as it should be, for it affords a range of study and investigation for each succeeding group of boys and girls whose needs may differ in some respects from the present group.

The school library, also, is adding constantly to its store of useful reading matter. But it is now not only a library of books, bulletins, reports, and the like; it is a library of reproductions of great pictures, drawings, sculpture, models,

[28] For discussion of Workshops, see Vol. II, *Exploring the Curriculum*, Chap. VIII. Also Heaton, Camp, Diederich, *Professional Education for Experienced Teachers: The Program of Summer Workshops*, Progressive Education Association, University of Chicago Press, 1940.

specimens, motion picture films, and radio recordings. The school librarian is no longer the forbidding guardian of the sacred books; she has become just about the most useful person on the school staff. She shares with teachers as new units are planned and brings to the classroom, as well as to the library, a wealth of materials garnered from the four quarters of the earth.

If the reader is a teacher, he or she may be saying that these things cost money and that they are possible only in schools that have abundant financial resources. Teachers in the Thirty Schools would reply that the resources needed are not so much financial as creative. The teacher who sees the need of such material things usually has resources of mind and spirit sufficient to find ways of securing essential things. Much of the most valuable printed materials of instruction may be had free of charge from agencies of local, state, and federal government. Citizens are glad to give their services. Parent and student organizations raise funds in various ways. Their help can be enlisted. In some of the Thirty Schools each pupil contributes annually a dollar or two to a fund which makes possible rich resources for students' investigation and learning. Even those schools with the most limited financial resources found ways of overcoming difficulties caused by the dearth of materials of instruction.

Problem Solving Develops the Habit of Reflective Thinking

A strong influence in shaping methods of teaching in the Thirty Schools has been the conviction that young people in a democracy should develop the habit of reflective thinking and skill in solving problems. Instead of a lesson to be learned, the work is more often a problem to be solved. As

the curriculum came to consist more and more of youth's problems of living, emphasis upon techniques of problem solving inevitably grew stronger. Since the solution of difficult problems involves reflective thinking, much of the work in all subjects and courses, especially in mathematics and science, was designed to give pupils experience in clear, logical thinking in problem solving. One of the participating schools gives unusual emphasis in its report to the development of critical thinking:

> Critical or reflective thinking originates with the sensing of a problem. It is a quality of thought operating in an effort to solve the problem and to reach a tentative conclusion which is supported by all available data. It is really a process of problem solving requiring the use of creative insight, intellectual honesty, and sound judgment. It is the basis of the method of scientific inquiry. The success of democracy depends to a large extent on the disposition and ability of citizens to think critically and reflectively about the problems which must of necessity confront them, and to improve the quality of their thinking is one of the major goals of education.
>
> The faculty recognizes that the acceptance of this responsibility has very important implications for both content and method. The problems studied should have their origin in the daily living experience of the students, and they should be studied in a manner conducive to the free play of intelligence. A student is not likely to enter actively into discussion on any point unless he knows that his honest opinions will receive respectful consideration. Nor is the cultivation of reflective thinking the special responsibility of any one subject matter area. It is rather the concern of all areas in the school. . . .[29]

Then follow illustrations showing how experience in critical thinking is constantly involved in all areas of this school's work. Here are two instances:

[29] University School, Ohio State University, Vol. V, *Thirty Schools Tell Their Story.*

In the arts area, for example, an individual student or a group of students selects a problem on the basis of carefully considered values which have been defined through the combined thinking of both student and teachers. Before undertaking a project in any one of the arts laboratories such questions as the following are considered:

Will it provide a new and worthwhile experience? Will it serve the purpose for which it was intended? Will the completion of this project require more time than can be justified? Will the needed materials and equipment, such as tools and machinery, be available? What will be the cost of the materials and how will it be met?

Once a student has an idea which he would like to express through the medium of the arts, such practical questions as these require him to exercise judgment in defining the actual nature of his problem.

. . . . . .

An illustration will show how reflective thinking develops in social studies. The members of one class became conscious that their prejudices, attitudes, and beliefs were operating to obstruct their thinking about certain socio-economic problems. Some one raised the question as to how these ideas originated and this led to a study of public opinion. The problem was defined as "Understanding How Public Opinion is Formed, and particularly How our own Opinions Came About." Once the problem had been defined, students took active part in planning for its solution. Suggestions were carefully considered, ideas awkwardly expressed were refined and clarified, and the whole process was utilized as an opportunity for teaching effective methods of problem solving.[30]

Pioneering Is Hard but Gratifying

To teach new content in new ways, teachers found themselves inadequately prepared. To become a competent teacher of a core curriculum group was especially difficult.

[30] *Ibid.*

The "core" teacher may have been a teacher of any "subject." He still retains his special field of interest and scholarship, but he is the leader of a group of young people because he has become a person of sympathy, insight, and wisdom, devoted to the service of youth in the *whole* range of their interests and concerns.

He has not been this kind of teacher always. He has been a good teacher of his subject, and he has always been interested in boys and girls; but he thought, until a few years ago, that his responsibility was fulfilled when he did his best as a teacher in his own field of specialization. Then about 1933 he found his school and himself involved in this Eight-Year Study. With his principal and colleagues he engaged in serious reconsideration of the school's service to its boys and girls. That re-examination revealed important needs of young people which were not being met by the school or by any other agency in the community. It was decided that the school should attempt to provide for certain of these neglected concerns of youth. Because this teacher was highly intelligent, close to his students, progressive and creative in his outlook upon education and life, he was chosen to be the leader of one of the student groups.

He did not consider himself ready for his new and wider responsibilities, as, indeed, he was not. But no other teacher was any better prepared for the new work. He and other teachers like him set out with great courage to go along with boys and girls on the high road of youth's adventure in living. They would do the best they could, and they would learn month after month and year after year how better to lead their boys and girls into fuller and more satisfying living. They knew the task would be difficult—trail-blazing always is—but they were confident that they could become competent in their new work.

Hundreds of them did become competent in their larger and more significant responsibilities. In all the schools many teachers have had a new birth of freedom. Their lives, professionally and personally, have been immeasurably enriched. Teaching has become a thrilling, absorbing experience. This new life has not been won without cost. They have spent long hours in hard study and in almost endless conference with other teachers, with students and parents. But they all testify that their present joy in their work, their deep sense of satisfaction in knowing they are serving youth more vitally are worth all the cost and more.[31]

No small part of the increasing strength of the schools and the growth of teachers is due to the work of the Curriculum Associates. In response to requests from the schools for help, men who were themselves distinguished teachers were selected to serve as consultants in their fields of special competence. They came to the schools, not as authorities with ready-made solutions, but as experienced students of curriculum problems, willing and ready *to work with* the local teacher in the solution of *his* problems. They were without official authority; their influence depended wholly upon the worth and applicability of their ideas. Under these conditions the schools welcomed their coming and profited steadily year after year from their assistance.

What to teach and *how* to teach—these are the constant concerns of education. The Thirty Schools have tried to teach more important things in better ways. This chapter indicates briefly, of necessity, what they did and how they did it. Volume II of this Report, *Exploring the Curriculum,* tells the story in much greater detail, and Volume V, *Thirty Schools Tell Their Story,* records each school's report of its work and

[31] Vol. II, *Exploring the Curriculum,* Chaps. VII and VIII.

manner of working. The schools participating in the Eight-Year Study have not come to the end of the high road of adventure. Although the Commission's work ends with the publication of this Report, the work of the schools goes on. They know that much pioneering is yet to be done. They know, also, that some of the trails they have blazed are good paths to follow.

Chapter IV

THE SCHOOLS STUDY THEIR PUPILS

From the beginning of the Study the Commission and the participating schools have recognized their responsibility for appraising the results of their work. They were not willing that the value of ten years of concerted effort should be judged by vague impressions or individual opinion based upon partial evidence. The Eight-Year Study had been launched in sincere hope that student growth toward desired objectives would be accelerated while students were still in secondary school and that those who went on to college would do well there. It was realized that abundant data concerning student development should be secured, recorded and reported so that the students themselves, their teachers and parents, colleges, and prospective employers might be fully informed. This chapter tells what was done to measure, record, and report student progress in secondary school; the next chapter reports the study of the success of students in college and the significant results obtained. The Commission regrets that its resources did not permit a similar study of the graduates of the Thirty Schools who did not go to college. It is expected, however, that such investigations will be made by many of the member schools.

How Did They Evaluate Their Work?

Schools have always measured results in some fashion. Examinations have always been a part of school life. Even

in an earlier day when the function of the school was limited to the teaching of the Three R's, it was difficult to measure with accuracy the proficiency of pupils in reading, writing, and arithmetic. But in this day, when the schools are attempting to meet many diverse needs of youth, the task of appraisal has become extraordinarily difficult.

During the last two or three decades measurement in education has received increasing emphasis; numberless tests have been devised, published, and used in schools, yet for many important aims of education no instruments of evaluation existed when this Study began. Most of the tests used by schools were designed to measure chiefly accretions of information and proficiency in certain skills. However, no school limits its objectives to these two. Every school has other purposes that it believes to be equally, if not more, important.

The Thirty Schools took the position that evaluation is important only in relation to purpose. Unless objectives are clearly defined, there can be no significant measurement of results. As one principal said, "The results sought by a school must be constantly before the faculty as a pillar of cloud by day and a pillar of fire by night." With goals, even moving ones, clearly seen, measurement of progress becomes possible.

Perhaps the most fruitful experience of the Thirty Schools in the early stages of the Study was that of thinking through and stating plainly the results they hoped to achieve. They wanted, for example, to help young people to understand themselves, to learn how to work satisfactorily with others, to read intelligently and express themselves well in speech and in writing, to learn how to investigate a topic and follow its leadings, to broaden and deepen their interests.

Then the Thirty Schools asked, How can we know

whether such results are being attained? Not many of the tests in general use in 1933, when the participating schools began their new work, were helpful. Standardized tests were usually based upon the traditional content of conventional subjects. As the schools developed new content and types of curriculum organization designed to achieve their purposes, it was soon discovered that new instruments and more comprehensive programs of appraisal were needed. To meet this need the evaluation service of the Study was established in 1934.[1]

From the beginning the Evaluation Staff worked intimately with the Thirty Schools. Its task was to help develop effective ways to find out what changes were produced in students by their school experiences. Let it be emphasized that *this was done co-operatively.* Teachers in the schools participated in formulating every plan and in devising every test. Always evaluation was related to purposes which teachers considered important, and always the product of technical test-construction was subjected to the searching criticism of unusually competent teachers.

The director and members of the Evaluation Staff began their work by analyzing the purposes that the schools had listed when they entered the Study. It was found that the schools were concerned with these ten major types of objectives:

1. The development of effective methods of thinking
2. The cultivation of useful work habits and study skills
3. The inculcation of social attitudes
4. The acquisition of a wide range of significant interests

[1] Vol. III, *Appraising and Recording Student Progress,* gives a complete account of Evaluation in the Eight-Year Study.

5. The development of increased appreciation of music, art, literature, and other aesthetic experiences
6. The development of social sensitivity
7. The development of better personal-social adjustment
8. The acquisition of important information
9. The development of physical health
10. The development of a consistent philosophy of life

The schools were saying to the Evaluation Staff, "We do not know surely whether our work is producing the results we desire. We need to know. Can you help us find out whether or not our efforts produce in students effective methods of thinking; a wide range of significant interests; increased appreciation of music, art, and literature; social sensitivity; and a consistent philosophy of life? If our teaching is not bringing about these results, we shall change our curriculum and teaching methods in the hope that we can accomplish our purposes. Then we shall examine results again."

The answer was, "We will try, but you must work with us. The task is difficult. Many technicians have said that it is impossible to devise reliable measures of progress toward such intangible objectives. We think it can be done. It will take time. The first instruments we construct may not be satisfactory. If you will try them out in your classes, we will discover wherein the tests are faulty and try again. We hope that eventually we shall be able to provide instruments of evaluation that will be useful to you in appraising the results of your work."

In the course of the seven years the Evaluation Staff devised about two hundred tests that were used experimentally, refined, and tried out again and again. Some of

them were finally discarded as inadequate, but others have proved to be useful to the schools and satisfactory to the Staff. They have been used with thousands of students, and their helpfulness and reliability have been established.

Sixteen of these evaluation instruments have been used most widely in secondary schools. They are listed here with a brief description of the nature and purpose of each:

Test 2.52. Interpretation of Data
This includes a series of exercises which require the student to formulate reasonable generalizations from data largely drawn from fields of the sciences and the social studies.

Test 1.3b. The Application of Principles of General Science
This includes a series of exercises in which the student is required to explain various scientific phenomena in terms of relevant facts and principles.

Test 1.42. Social Problems
This includes a series of social problems in which the student is asked to select a course of action and to support it in terms of social science generalizations and in terms of his own social beliefs.

Test 1.5. Application of Principles
This involves a series of social problems, the explanation of which rests more closely upon facts and generalizations and less upon social beliefs than in the case of Test 1.42.

Test 5.12. The Application of Certain Principles of Logic
The exercises in this test require the student to determine what conclusions follow logically from the premises.

Test 5.22. The Nature of Proof
These exercises require the student to identify basic definitions and assumptions and to judge their plausibility.

Test 7.1. Familiarity with Dependable Sources of Information
These exercises require the student to indicate sources of information on questions for study in various subject fields.

Test 7.2. Use of Books and Libraries
These exercises require familiarity with the organization of books and school libraries.

Test 7.3. Use of Books and Libraries for Junior High Schools
This is similar to Tests 7.1 and 7.2, but is less difficult.

Test 4.21 and 4.31 Scale of Beliefs
The exercises in the two parts of this test give evidence of the liberalism or conservatism of the student's belief on various social science issues, and also give some measure of consistency of these beliefs.

Test 3.31. Questionnaire on Voluntary Reading
This questionnaire gives an indication of the types and intensity of the student's reactions to literature.

Test 3.9. Seven Modern Paintings
This test and questionnaire gives some evidence of the student's reaction to a sample of modern paintings.

Test 3.10 and 3.11. Finding Pairs of Pictures
This is a non-verbal test requiring the student to select pairs of pictures which seem to him similar in important respects. It provides evidence of the range and maturity of his sensitivity to aesthetic aspects of pictures.

Test 8.2a. Interest Index
This questionnaire gives evidence of the range and maturity of the student's interests in activities related to various school subjects.

Test 3.1. Record of Free Reading
The free reading of students is appraised in terms of range and maturity by means of a list of fiction authors classified by types and by levels of maturity.

Test 8.2b and c. Interests and Activities
These questionnaires throw some light on the personal-social adjustment of adolescents in terms of their likes and dislikes for various types of personal and social experience.

Appraisal of results in the Thirty Schools was not limited to written examinations. As the Director of Evaluation states,

> . . . Any device which provides valid evidence regarding the progress of students toward educational objectives is appropriate. As a matter of practice, most programs of appraisal have been limited to written examinations or paper-and-pencil tests of some type. Perhaps this has been due to the greater ease with which

written examinations can be given and the results summarized. However, a consideration of the kinds of objectives formulated for general education makes clear that written examinations are not likely to provide an adequate appraisal for all of these objectives. A written test may be a valid measure of information recalled and ideas remembered. In many cases, too, the student's skill in writing and in mathematics may be shown by written tests, and it is also true that various techniques of thinking may be evidenced through more novel types of written test materials. On the other hand, evidence regarding the improvement of health practices, regarding better personal-social adjustment of students, regarding interests and attitudes, may require a much wider repertoire of appraisal techniques. This assumption emphasizes the wider range of techniques which may be used in evaluation such as observational records, anecdotal records, questionnaires, interviews, check lists, records of activities, products made, and the like. The selection of evaluation techniques should be made in terms of the appropriateness of that technique for the kind of behavior to be appraised.[2]

It was neither desirable nor possible for the Evaluation Staff to devise tests for all kinds of new courses and units developed by the schools. They constructed instruments of appraisal in areas of most common concern. Moreover, the Staff rendered another service equally important: they taught hundreds of teachers how to devise their own tests. The effect of a unique unit of work, designed to bring about certain changes in students, should be measured by a test specifically made for that situation. Therefore, teachers were assisted in Workshops, at evaluation headquarters, and in their own schools in the techniques of test construction, in the use of instruments of evaluation, and in the interpretation of results.

The ways in which the schools used the contributions of

[2] Ralph W. Tyler, Vol. III, *Appraising and Recording Student Progress*, Chap. I.

the Evaluation Staff and the results of such use are recorded in Volumes III and V of this Report. It should be reported here that, to a greater or less extent, the schools in the Study have now developed comprehensive programs of evaluation. Perhaps no school has yet found ways of securing all the knowledge it should have concerning the effects of its efforts. However, every participating school now attempts to appraise its own work more intelligently and comprehensively than it did when the Study began. Freedom from college requirements has definitely increased each school's sense of responsibility for knowing the consequences of its endeavors.

In the Thirty Schools evaluation and teaching belong together. They react upon each other continuously. Step by step in the process of learning, the teacher and student measure the distance traveled, learn just where the student is and how far he has to go to reach the desired goal. If, as in many of the Thirty Schools, the student has shared with the teacher in determining objectives and planning how to attain them, he is just as eager as the teacher to learn what progress he has made. Teacher and students together plan the work, carry it through, and test results. In bringing teaching and evaluation into closer co-operation the Evaluation Staff has rendered the Thirty Schools distinctly valuable service. In developing instruments of evaluation in areas previously neglected, they have made an important contribution to progress, not only in the participating schools, but in schools everywhere.

What Did They Put on the Record?

What goes on the high school record is of concern to the student, his parents, the college admission committee, the

prospective employer, and others. Those who have been involved in the Eight-Year Study have emphasized continuously the importance of what is recorded and reported about high school boys and girls. Students know that what the school writes down reveals its real objectives much more clearly than the usual catalog "statement of purposes." Therefore, they work for the things the school records; they want "a good record."

The obligation to secure, record, and report pertinent data concerning candidates was inherent in the agreement with the colleges. The schools had promised to provide the colleges with evidence of the candidate's readiness for college work. They wanted to give colleges more significant information than the student's record of units and grades. It was their hope that each applicant would be so completely described that the college would have a much better basis for selection and guidance than ever before. If this could be done, the transition from school to college would be facilitated and the student's educational experience in school and college could have both unity and continuity.

Recognizing the importance of recording and reporting, the Directing Committee formed the Committee on Records and Reports when the participating schools began their new work in 1933. All of the work of this committee, and of the special recording committees formed later, has been done under the direction of Dr. Eugene R. Smith, Headmaster, Beaver Country Day School. The Committee on Records and Reports was asked to aid the schools in determining

1. what information the college needs for wise selection and guidance of students;
2. how that information can best be secured;

3. in what form it should be recorded and presented to the colleges.

The Committee had not gone far with its work before it was realized that the task it had assumed was difficult and extensive. Although its original purpose was to assist the Thirty Schools in furnishing colleges needed information, the Committee was soon asked to help the schools in the whole field of evaluation for all pupils, whether they were going to college or not. Therefore, it became necessary to secure additional service and to divide the work. To assist the schools in collecting evidence of each student's progress, the Evaluation Staff was organized with Dr. Ralph W. Tyler as Director. Its work is reported in the first section of this chapter and in Chapter V. The responsibility for assistance to the schools in recording and reporting evidence remained with this Committee. The major aspects of its eight years of work are presented here.[3]

For its own guidance the Committee set up general purposes and working objectives of recording. They are given here for the aid they may be to others in the same field.

General Purposes of Recording

1. Adequate records provide a sound basis for understanding and counseling individuals.

2. Records furnish the material for intelligent home and school co-operation.

3. Records reveal whether the individual is ready for new experiences. They are essential at points of transition, such as from school to college or from school to employment.

4. Records that grow out of the major purposes of educa-

[3] The full account is to be found in Vol. III, *Appraising and Recording Student Progress,* Section II.

tion serve to stimulate teachers and to keep important goals steadily in view.

Working Objectives for Records and Reports

1. Any form devised should be based on the objectives of teachers and schools so that a continuing study of a pupil by its use would throw light on his successive stages of development in powers or characteristics believed to be important.

2. The forms dealing with personal characteristics should be descriptive. Therefore "marks" of any kind, or placement, as on a straight line representing a scale from highest to lowest, should not be used.

3. Every effort should be made to reach agreement about the meaning of trait names used, and to make their significance in terms of the behavior of a pupil understood by those reading the record.

4. Wherever possible a characterization of a person should be by description of typical behavior rather than by a word or phrase that could have widely different meanings to different people.

5. The forms should be flexible enough to allow choice of headings under which studies of pupils would be made, thus allowing a school, department, or teacher to use the objectives considered important in the particular situation, or for the particular pupil.

6. Characteristics studied should be such that teachers would be likely to have opportunities to observe behavior that gives evidence about them. It is not expected, however, that all teachers will have evidence about all characteristics.

7. Forms should be so devised and related that any school would be likely to be able to use them without an overwhelming addition to the work of teachers or secretaries.

8. Characteristics studied should be regarded not as independent entities, but rather as facets of behavior shown by a living human being in his relations with his environment.

With these guiding purposes and working objectives the Committee has produced record-forms in many areas for varying uses. Forms customarily used by schools provide for only a few aspects of development. This Committee attempted to make provision, on the forms devised, for more comprehensive reports of youth's developing powers. However, any record-form runs the risk of imposing limitations. For example, it may not provide for all the data which should be written into the story of a student's activities. The Committee has sought to avoid this danger by making provision for recording a wide range of information and by leaving spaces on the forms for additional data not called for by the topics and headings listed.

The necessity for a considerable measure of uniformity for reporting is obvious. Any report that is really significant requires careful reading and interpretation by the one who receives it. Parents, college admission committees, and employers welcome reports that are not difficult to interpret and that are reasonably uniform. The Committee on Records and Reports finds that its record-forms are being used widely and with increasing satisfaction. It is hoped that they will serve to bring some measure of order out of the chaos caused by the multiplicity of record-forms now in use.

The forms that have been developed are known as "Behavior Description," "Reports to Parents," "Transfer from School to College," and "Development of Pupils in Subject Fields." The first, Behavior Description, should receive some comment here. This form provides for description of the student under these headings: Responsibility-Dependability, Creativeness and Imagination, Influence, Inquiring Mind,

Openmindedness, Power and Habit of Analysis, Social Concern, Emotional Responsiveness, Serious Purpose, Social Adjustability, Work Habits. Because words have varying meanings, the form indicates the meaning of each heading and provides for a report upon the degree or extent to which the term is descriptive of the student. Here is an illustration.

Openmindedness

(The student is)

DISCRIMINATING: Welcomes new ideas but habitually suspends judgment until all the available evidence is obtained.

TOLERANT: Does not readily appreciate or respond to opposing viewpoints and new ideas, although he is tolerant of them and consciously tries to suspend judgment regarding them.

PASSIVE: Tolerance of the new or different is passive, arising from lack of interest or conviction. Welcomes, or is indifferent to change, because of lack of understanding or appreciation of the new or of that which it replaces.

RIGID: Preconceived ideas and prejudices so govern his thinking that he usually ends a discussion or an investigation without change of opinion.

INTOLERANT: Is actively intolerant; resents any interference with his habitual beliefs, ideas and procedures.

The Behavior Description record-form is the product of the long-time labor of many able school and college representatives who served on the Committee with unselfish devotion. They attempted to provide a way of presenting a word-sketch, a profile of the student. They did not consider the words they used for captions as designations of disparate

traits. With great care the committee members chose words that indicate characteristics, qualities of mind or character that schools generally try to develop in their students. With equal thoughtfulness, hundreds of teachers and administrators from schools and colleges have contributed to the work of the many special sub-committees which have devised these various means of reporting the growth of young human beings.

The Chairman and all members of the Committee on Records and Reports and of all special committees emphasize the tentative structure of the record-forms as they now stand. Although many have been used in thousands of cases, it is expected that further experience with them will reveal ways in which they can be improved. Those who have served in this phase of the Commission's work stress, also, the need of study and investigation looking to the development of records for use in helping, especially, those boys and girls who leave school directly for employment. Such records and reports are essential for intelligent vocational guidance and placement.

While the Committee believes that the forms developed will prove suitable for many institutions, particularly in view of the flexibility of the forms, it realizes that for other institutions they may need modification, while for still others they may prove suggestive only in details or principles. Some of the individual co-operating schools, recognizing particular conditions or needs of their own, prepared record-forms that seemed suitable for their particular purposes. These schools may be able to help other schools having conditions much like their own.

The work reported in this section is an integral and essential part of the whole Eight-Year Study. Better relations be-

tween schools and colleges, vitalized curriculums, more skillful and inspiring teaching, more significant and comprehensive evaluation—these and all other developments of the Study are intimately related to the records the schools keep and to the reports they make.

Chapter V

WHAT HAPPENED IN COLLEGE?

Among the important purposes stated by all high schools "preparation for college" is always to be found near the top of the list. Even though a small minority go to college, the school is vividly aware of this objective. All of the Thirty Schools stated that they expected to send young men and women into college well ready for the responsibilities they would meet there. The schools in the Study, believing that there are many different kinds of work through which students may develop the skills, habits, and qualities essential to satisfactory achievement in college, made such changes as are reported in Chapters II and III. Many of these innovations were marked departures from the conventional pattern prescribed as preparation for college. These changes were made to meet more fully the present, as well as future, needs of students. School work was brought much closer to students' lives; their concerns while in high school became content of the curriculum for all, whether they were going to college or not.

It has long been assumed that adequate preparation for the work of the liberal arts college depends upon proficiency in certain studies in high school. The colleges and universities have been saying something like this to prospective college students: "To be ready for the work that will be expected of you here, you should study English during your high school course. If you do well and secure good grades,

you will have 3 or 4 credits to present for admission. You should also study algebra for at least one year, preferably two, and geometry for one year. That will add 2 or 3 admission credits. It is necessary for you to know at least one foreign language; therefore you must spend at least two years in the study of a foreign language. But we advise you to spend two more years in the study of that language, or two or three years in studying a second foreign language. That will provide from 2 to 5 more entrance credits. You must study history, preferably ancient history, for one year, and science, preferably physics or chemistry, for one year. There you have 2 more credits. You now have accumulated at least 9 entrance credits which we require; but if you have followed our recommendations, you have 14 of which we heartily approve. We require for admission a total of 15 credits. To secure the required number you may present other subjects which you have studied in high school, but we advise you to present additional credits in those fields of study we have recommended. If you wish to offer credits in some other subjects—such as mechanical drawing, art, or music—your school must have its courses in these subjects approved by this college."

Colleges differed, of course, in the rigidity with which they adhered to these prescriptions. Some prescribed more, some less. A few colleges imposed no credit prescriptions whatever, but required entrance examinations in at least the four subjects studied in the senior year of high school.

The Thirty Schools set out upon their explorations with the consent of practically all colleges and universities. From many the schools received sympathetic understanding. Taken by and large, the institutions of higher education have kept the agreement in letter and in spirit. In all cases the

participating schools were freed from subject and credit prescription and in most cases from entrance examinations. Hundreds of young men and women entered college from the Thirty Schools without having studied all of the usual required subjects. Some had taken such subjects, but for shorter time than is usually required.

The Commission and the Schools Ask Questions

It seemed to the Commission and the schools that an attempt should be made to learn whether departures from the conventional pattern of college preparation handicapped students in their work in college. The relation of school and college in American education was based upon the assumption that the skill, knowledge, discipline, habit of mind, and understanding essential for success in college depend upon the study in high school of certain subjects for certain periods of time. Here was an opportunity to test that assumption. If the graduates of the Thirty Schools were not ready for college work, it would indicate that the assumption is sound; if they did well, there would be evidence that the assumption is untenable and that a sounder and more realistic basis of school and college relations should be established.

Other related questions called for answer. Will these secondary schools use their new freedom wisely? Can they be trusted? Will their standards of work suffer? If these thirty schools prove that they can be trusted to use freedom sanely and creatively, will it be safe for colleges to extend such freedom to other schools? Is it possible to give more attention to present concerns of all high school pupils without sacrificing adequate preparation for those going on to college? Can practicable ways be found for colleges and schools to work together more effectively for common purposes?

The Investigation Is Planned

According to the agreement made with the colleges, the first class to be included in this plan would enter college in September, 1936. Therefore, preparations were made to study the graduates of the Thirty Schools as they pursued their careers in college. Volume IV of the Commission's Report, entitled *Did They Succeed in College?* gives a detailed, complete account of this investigation and of the findings that resulted. Here, in this over-all report of the Eight-Year Study, the way in which the college study was conducted and the findings thereof are reported in summary only.

The college investigation was made under the immediate direction of Dr. Ralph W. Tyler, Chairman of the Department of Education for the University of Chicago. Responsible, impartial members of college faculties who knew how to work with college students were chosen to make the study.[1] It should be understood that this college staff approached their work without prejudice and without commitments to the Progressive Education Association or to the Commission.

Their task was a challenging one, for the first questions they had to answer were these: What does success in college mean? Upon what basis shall judgment be rendered? What are the significant aspects of the student's life at college? How can we discover and record the important evidences of his growth and development?

[1] John L. Bergstresser, Assistant Dean, University of Wisconsin, representative for the state universities, July, 1936 to July, 1937; Dean Chamberlin, Assistant Dean of Freshmen, Dartmouth College, representative for the eastern men's colleges; Enid Straw Chamberlin, Instructor in English, Wellesley College, representative for the eastern women's colleges; Neal E. Drought, Assistant Dean, University of Wisconsin, representative for the state universities from July, 1937 until the end of the Study; William E. Scott, Assistant Dean of Students, University of Chicago, representative for the endowed coeducational colleges; Harold Threlkeld, University of Denver, special representative for colleges in the Denver area.

After spending the summer of 1936 in conference among themselves, with members of the Commission and the Commission's Staff, with teachers and principals in the Thirty Schools, with college deans, professors, and graduates, they drew up this set of criteria for their guidance:

1. Intellectual competence
2. Cultural development; use of leisure time; appreciative and creative aspects
3. Practical competence; common sense and judgment; ordinary manual skills; environmental adaptability
4. Philosophy of life (pattern of goals)
5. Character traits (pattern of behavior)
6. Emotional balance (including mental health)
7. Social fitness
8. Sensitivity to social problems
9. Physical fitness (knowledge and practice of health habits)

As the staff making this College Follow-up Study explains, "Each of these criteria was broken down into more detailed and specific subdivisions, and opposite each criterion were listed suggested possible sources of evidence."[2] For example, the first criterion, intellectual competence, was subdivided as follows:[3]

Criteria	*Sources of Evidence*
1. Intellectual competence of the student	
A. Scholarship Formal measurement of academic achievement	1. Official college records 2. Honors, prizes

[2] Vol. IV, *Did They Succeed in College?* Chap. I.

[3] The other criteria with suggested sources of evidence may be found in *ibid.*, Appendix.

Criteria	*Sources of Evidence*
B. Intellectual curiosity and drive Manifestation of interest and activity in intellectual matters beyond course requirements	1. Questionnaires; reading records 2. Interviews, interests—number, quality, and variety 3. Samples of written work 4. Reports from instructors
C. Scientific approach Degree in which his work and thinking conform to the usually accepted characteristics of the scientific attitude	1. Tests 2. Interviews 3. Reports from instructors
D. Study skills and habits Willingness and ability to employ the tools of learning	1. Subject-matter placement tests 2. Oral reading tests 3. Silent reading tests 4. Other tests (library use, study techniques, etc.) 5. Samples of written work 6. Reports from instructors a. Research ability b. Accuracy, thoroughness, and organization c. Facility with examinations d. Request for special aid 7. Interviews and questionnaire a. Time distribution b. Study environment c. Student's own evaluation 8. Official records a. Excuses and cuts b. Late papers c. Remedial records

About 2000 graduates of the Thirty Schools entered 179 colleges in the fall of 1936. It was obviously impossible for

the college study staff to go to all these colleges to follow all students. Selection had to be made. This was done on the basis of three factors: (1) the number of graduates of the Thirty Schools enrolled; (2) types of colleges; (3) the degree of co-operation offered by the colleges to the Follow-up Staff. The colleges that were agreed upon as centers for intensive study are:

State Universities

Ohio State University
Oklahoma A. and M. College
University of Oklahoma
University of Michigan
University of Wisconsin

Men's Colleges

Amherst College
Brown University
Columbia University
Dartmouth College
Harvard University
Massachusetts Institute of Technology
Princeton University
Williams College
Yale University

Coeducational Endowed Colleges and Universities

Cornell University
Swarthmore College
University of Chicago
University of Denver
University of Pennsylvania
University of Tulsa

Women's Colleges

Bennington College
Bryn Mawr College
Mount Holyoke College
Smith College
Wellesley College

Many other colleges co-operated in the study by distributing questionnaires and by supplying the college observers with grades, instructors' reports, and other materials. Among the colleges thus assisting were: Iowa State College, University of Iowa, Antioch College, Drake University, Colgate University, Johns Hopkins University, Lehigh University, Wesleyan University (Connecticut), Barnard College, Connecticut College for Women, Mills College, Pembroke College, Radcliffe College, Sarah Lawrence College, and Simmons College. One hundred and twenty other colleges

willingly supplied grades and other information to the Follow-up Staff upon request.

It was necessary to establish some just basis of comparison if the work of the graduates of the Thirty Schools was to be judged fairly. Since it was expected that they would be somewhat above the average college students in native ability, it would not do to compare their achievement with average performance. Therefore, a basis of comparison was established by matching, with utmost care, each graduate from the Thirty Schools with another student in the same college who had taken the prescribed courses, had graduated from some school not participating in the Study, and had met the usual entrance requirements. They were matched on the basis of sex, age, race, scholastic aptitude scores, home and community background, interests, and probable future. For example, here is a boy—the son of a lawyer and a graduate of one of the large, public schools in the Study—eighteen years of age, from a home and community which afford cultural and economic advantages, unusually able in mathematics and planning to become an engineer. As his "matchee," the Follow-up Staff selected in the same college a boy, eighteen years of age, who had a similar background, the same vocational interest and scholastic aptitude, but who had met the customary entrance requirements.

The Staff Study
the Students

The members of the College Follow-up Staff did their work with painstaking care. They learned all they could about each student, treating alike the students from the Study and their matchees. Their sources of information were official college records, lists of honors or prizes won, reports from instructors, samples of written work, results of various types of tests given by the college, and the student himself.

Each student was asked to reply to three questionnaires a year. After the first, which was filled out early in the school term, interviews lasting from fifteen minutes to two hours were held with each student.

The conversation usually began with a discussion of the questionnaire, which asked about the student's academic, social, and personal problems; his health; his activities, athletic and otherwise; his reading, attendance at lectures and concerts, radio listening, and movie attendance. Also, the student was asked to discuss his preparation for college and his reaction to college life as he found it. The conversation soon shifted to all sorts of topics: from raising puppies to world affairs. In most cases students welcomed the chance to talk freely with a friendly person who showed interest in them. From these written replies to questions, from long, informal talks, and from information secured from college records and college instructors, deans, and other personnel officers the College Staff came to know each student well. Upon this intimate and abundant knowledge they base the report of their investigation.

Altogether, 1475 pairs of students were studied—those entering college in 1936, for four years; those entering in 1937, for three; those entering in 1938, for two; and the class entering in 1939, for one year. A vast amount of data was accumulated, and the Staff gave their summers and most of 1941 to analysis of the collected information.

What did they discover?

The Graduates of the Thirty Schools Succeed

In the comparison of the 1475 matched pairs, the College Follow-up Staff found that the graduates of the Thirty Schools

1. earned a slightly higher total grade average;
2. earned higher grade averages in all subject fields except foreign language;
3. specialized in the same academic fields as did the comparison students;
4. did not differ from the comparison group in the number of times they were placed on probation;
5. received slightly more academic honors in each year;
6. were more often judged to possess a high degree of intellectual curiosity and drive;
7. were more often judged to be precise, systematic, and objective in their thinking;
8. were more often judged to have developed clear or well-formulated ideas concerning the meaning of education—especially in the first two years in college;
9. more often demonstrated a high degree of resourcefulness in meeting new situations;
10. did not differ from the comparison group in ability to plan their time effectively;
11. had about the same problems of adjustment as the comparison group, but approached their solution with greater effectiveness;
12. participated somewhat more frequently, and more often enjoyed appreciative experiences, in the arts;
13. participated more in all organized student groups except religious and "service" activities;
14. earned in each college year a higher percentage of non-academic honors (officership in organizations, election to managerial societies, athletic insignia, leading roles in dramatic and musical presentations);

15. did not differ from the comparison group in the quality of adjustment to their contemporaries;
16. differed only slightly from the comparison group in the kinds of judgments about their schooling;
17. had a somewhat better orientation toward the choice of a vocation;
18. demonstrated a more active concern for what was going on in the world.

The College Follow-up Staff has this to say about these findings:

> Some of these differences were not large, but wherever reported, they were consistent for each class. It is apparent that when one finds even small margins of difference for a number of large groups, the probability greatly increases that the differences cannot be due to chance alone.
>
> *It is quite obvious from these data that the Thirty Schools graduates, as a group, have done a somewhat better job than the comparison group whether success is judged by college standards, by the students' contemporaries, or by the individual students.*[4]

When these results began to emerge, the Directing Committee and school Heads asked whether this creditable showing might be due to the graduates of those of the Thirty Schools which had not departed greatly from traditional patterns and ways of college preparation. To answer this question the College Staff analyzed the records of the graduates of the six participating schools in which least change had taken place and the records of the graduates of the six schools in which the most marked departures from conventional college preparatory courses had been made. Each of these groups was studied in relation to its respective comparison group.

[4] Vol. IV, *Did They Succeed in College?* Chap. X.

This investigation revealed that

The graduates of the most experimental schools were strikingly more successful than their matchees. Differences in their favor were much greater than the differences between the total Thirty Schools and their comparison group. Conversely, there were no large or consistent differences between the least experimental graduates and their comparison group. For these students the differences were smaller and less consistent than for the total Thirty Schools and their comparison group.[5]

The College Follow-up Staff comments on these facts as follows:

If the proof of the pudding lies in these groups, and a good part of it does, then it follows that the colleges got from these most experimental schools a higher proportion of sound, effective college material than they did from the more conventional schools in similar environments. If colleges want students of sound scholarship with vital interests, students who have developed effective and objective habits of thinking, and who yet maintain a healthy orientation toward their fellows, then they will encourage the already obvious trend away from restrictions which tend to inhibit departures or deviations from the conventional curriculum patterns.[6]

In order to refine this particular analysis still further, the graduates of two of the most experimental schools were selected for a separate study. One of these schools is a relatively small private school, the other is the experimental section of a large public school in the Study. In the private school were small classes, intimate knowledge of each student, close contact with his parents, and a fairly homogeneous economic and social background. In the public school many of these favorable conditions were lacking. The graduates of these two schools were contrasted with their matchees. As

[5] *Ibid.*
[6] *Ibid.*, Chap. VII.

a result, the staff reports that "the superiority of these progressive graduates over their comparison group was greater than any previous differences reported."[7] The graduates of these two schools surpassed their comparison groups by wide margins in academic achievement, intellectual curiosity, scientific approach to problems, and interest in contemporary affairs. The differences in their favor were even greater in general resourcefulness, in enjoyment of reading, participation in the arts, in winning non-academic honors, and in all aspects of college life except possibly participation in sports and social activities.

Concerning the different conditions prevailing in these two schools, the College Staff has this to say:

> The products of these two schools are indistinguishable from each other in terms of college success. Good teaching obviously was characteristic of both these schools. But good teaching alone was not responsible for the superiority of the product—good teaching, after all, was characteristic of most of the Thirty Schools, as well as most of the schools from which the comparison group was drawn. The other important characteristics of both schools were: their willingness to undertake a search for valid objectives; organizing curricula and techniques and setting them in motion in order to attain the objectives; and, finally, measuring the effectiveness of curricula and techniques by appropriate evaluation devices. These are basic processes; their utility in any type of school is proved.[8]

The Directing Committee asked a group of distinguished college officials to examine the findings of this investigation and to draw any conclusion which in their judgment the data warrant. This committee prepared a report which was presented by the chairman to various regional meetings of

[7] *Ibid.*, Chap. X.
[8] *Ibid.*, Chap. VIII.

the Association of American Colleges early in 1940. Their report concludes with these two paragraphs:[9]

The results of this Study seem to indicate that the pattern of preparatory school program which concentrates on a preparation for a fixed set of entrance examinations is not the only satisfactory means of fitting a boy or girl for making the most out of the college experience. It looks as if the stimulus and the initiative which the less conventional approach to secondary school education affords sends on to college better human material than we have obtained in the past.

I may add that this report to you has been approved by a Committee of the Commission on School and College Relations consisting of the following membership: President Barrows of Lawrence College, President Park of Bryn Mawr, Dr. Gumere of Harvard, Dean Speight of Swarthmore, Dean Brumbaugh of Chicago, and myself.

HERBERT E. HAWKES, Chairman

The major findings of the investigation of the success of students in college were presented to the colleges in a series of regional, round-table conferences in the spring of 1940. The results of the Study, as presented, were not seriously questioned by anyone. What changes in school and college relations these conclusive findings will produce remains to be seen. Many colleges are now giving serious consideration to their relations with the schools from which their students come. There is reason to expect that the schools and colleges of the country will soon draw more closely together in a mutually satisfying relationship.

[9] For complete report, see Appendix of this volume, pp. 147-150.

Chapter VI

THIS WE HAVE LEARNED

What can be said now at the end of the Eight-Year Study? What has been learned through this experience? Have the hopes and expectations of those who inaugurated the project been fulfilled?

It should be recalled that the Commission had two major purposes:

1. To establish a relationship between school and college that would permit and encourage reconstruction in the secondary school.
2. To find, through exploration and experimentation, how the high school in the United States can serve youth more effectively.

Let us consider now the findings of the Study in the realm of school and college relations. The second part of this chapter presents conclusions based upon the experiences of the schools in their attempts to achieve the second major purpose: better service to American youth.

Many Roads Lead to College Success

The proposal for co-operation, which was approved by colleges and universities generally in 1932, established an effective co-operating relationship between them and the Thirty Schools for the period of the Study. It permitted and encouraged the participating schools to go ahead with their

plans for revision of their work. As stated early in this volume[1] the Commission and the schools held that

success in the college of liberal arts does not depend upon the study of certain subjects for a certain period in high school;

there are many different kinds of experience by which students may prepare themselves for successful work in college;

relations more satisfactory to both school and college could be developed and established upon a permanent basis;

ways should be found by which school and college teachers can work together in mutual regard and understanding.

The study of the college experience of the graduates of the Thirty Schools was made to secure evidence which would confirm these beliefs or show them to be unwarranted. The evidence is reported briefly in Chapter V and in detail in Volume IV of this Report. A careful examination of the findings can leave no one in doubt as to the conclusions that must be drawn:

First, the graduates of the Thirty Schools were not handicapped in their college work.

Second, departures from the prescribed pattern of subjects and units did not lessen the student's readiness for the responsibilities of college.

Third, students from the participating schools which made most fundamental curriculum revision achieved in college distinctly higher standing than that of students of equal ability with whom they were compared.

[1] Chap. I, pp. 22, 23.

These facts have profound implications for both school and college.

First, the assumption that preparation for the liberal arts college depends upon the study of certain prescribed subjects in the secondary school is no longer tenable. This assumption has been questioned for some time. Earlier studies threw some doubt upon it. The results of this Study disprove it. Success in college work depends upon something else. Real preparation for college is something much more important and vital than the accumulation of 15 prescribed units.

School and college relations based upon this untenable assumption are neither satisfactory nor sound. The relationship is an unhappy one. Colleges criticize the schools saying that students come to college unprepared for their work, that they are deficient in even the most rudimentary academic skills, that their habits of work are careless and superficial, and that they lack seriousness and clarity of purpose. Schools, on the other hand, charge that colleges regiment students, treat them too impersonally, counsel them inadequately, and fail to stimulate them intellectually. Teachers in secondary schools say that college professors are unwilling or unable to see the great problems of the high school, thinking of it only as a place of preparation for college and forgetting the school's obligation to the 80 per cent who stop their schooling at or before graduation from high school. Whether these criticisms are warranted or not, they reveal an unsatisfactory relationship. It does not seem that there can be much more happiness in either group until a sound basis of relationship is established.

The customary relations of school and college are unsound in that emphasis is placed upon outworn symbols—units, grades, rankings, and diplomas. To stand well with

its patrons the high school must meet college requirements. If those requirements are not essentials, both school and college are forced into false positions. The college is placed in the position of saying that certain subjects, grades, and units are essential when it knows that they are not; and the school is placed in the false position of forcing students through work which may be of little value to them.

The conclusion must be drawn, therefore, that the assumption upon which school and college relations have been based in the past must be abandoned. It is evident that the liberal arts college has not examined its work thoroughly and realistically and based on that examination its prescription of what is essential in preparation. This Study has proved that some knowledges and skills heretofore generally assumed to be necessary are not needed. It has established, also, that necessary disciplines of mind and character may be achieved through many other subjects than those formerly assumed to be the only effective ones.

It does not follow that it is useless or impossible to describe what preparation is actually required for success in college. Indeed colleges need to know—teachers, pupils, and parents need to know—what knowledge, what skills, what habits, what attitudes constitute the foundation for satisfactory achievement in college. When these are determined, colleges should then require them for admission; schools could then be intelligent in their important task of preparation.

But this is more easily said than done. The college cannot state what preparation is essential unless it knows its own purposes. It must be said here that liberal arts college faculties seldom state clearly what they mean by liberal or general education. Perhaps they do not know. Individual professors often have clearly defined purposes. Sometimes departments

such as English, history, economics have set up goals for their work. Rarely, however, have whole college faculties co-operatively thought their problem through and set forth their purposes and plans.

Although co-operative faculty study of liberal education is not usual in colleges, in some the faculty as a whole is attempting to re-define general education and to revise its work in the light of clearer purpose. One college,[2] which has been studying this problem seriously, turned last year to the question of preparation for college. Dean Herbert E. Hawkes gives this encouraging report of their deliberations:

A few weeks ago I called a conference of all the instructors of freshmen in Columbia College in order to talk about this important topic. In the course of the conference I asked them what kind of students they really wanted in their courses, what kind of intellectual background, what pattern of preparation, what areas of competency. The replies were interesting. They reported with one accord that they wanted boys who could read with good speed and comprehension, and who knew how to gauge their reading to the various types of material that they were called upon to master. They wanted boys who had a reasonable facility in self-expression, both orally and in writing. So much for English. Then they wanted boys who knew how to tackle a hard intellectual job and carry it through to completion—a boy who had acquired the habit and zest for work. You may call this discipline. Furthermore they wanted boys who knew an idea when they saw one, who were accustomed to dealing with ideas, in short, who had reasonable intellectual maturity.

These three points were mentioned again and again in one form and another. The amazing fact was that very little was said about the specific pattern of subject-matter preparation. If the students had gained these fundamental qualities and attitudes they did not care where they got them. In fact, many of the instructors in the various freshman courses in social studies, in humanities and even in science said that they could not tell

[2] Columbia College, Columbia University.

from the way in which a boy took hold of his college work whether he had passed this or that entrance examination except insofar as it was reflected in these qualities. To be sure, in the humanities it appeared that the boy who had good grounding in Latin had a head start in the reading of the Greek and Roman classics that are included in this course. But in this course, those who had received such training could not be distinguished from those who had not after a few weeks, provided they knew how to work. The corresponding fact held true in the sciences.

Here is a college faculty declaring that success in college depends upon skill in the use of the mother tongue, readiness and ability to work hard, and "reasonable intellectual maturity." Similar conclusions have been reached by other faculties. As more colleges re-examine their own purposes and procedures, and as they reconsider the problem of preparation for higher education, agreement may be reached upon some such essentials as those stated by the faculty at Columbia.

To go further and to conduct such co-operative study among many institutions is a most difficult task, as the Thirty Schools have discovered. Yet, if this were done, it would make possible a sound basis of relationship with schools. Until colleges and secondary schools know and agree on what they are trying to do, there is no intelligent way for them to unite their efforts on behalf of those who expect to go to college.

It should be emphasized here that it is already possible for colleges to establish adequate admission requirements that do not prescribe the content or organization of the secondary school curriculum. Prescription of subjects, units, and requirements of entrance examinations based upon predetermined subject matter have undoubtedly fixed the pattern of secondary education for the great majority of young

people in the United States. Without intending to do so, the colleges have handicapped schools in their attempts at fundamental reconstruction. *To move ahead schools must have encouragement from colleges. To give that encouragement colleges must abandon their present admissions policy.*

No one questions the right of colleges to set up requirements for admission of students. Quite properly colleges desire only those students who are equipped to do the work the college expects. They may justly require evidence of the candidate's fitness. It is the school's responsibility to provide that evidence. But all colleges and universities, whether tax-supported or privately endowed, are public institutions and, therefore, they have a public responsibility. Accordingly, no college can be justified in setting up requirements for admission which have been shown to be unnecessary in preparing students to do college work.

For the Thirty Schools many colleges waived the customary entrance examinations, and all colleges granted freedom from subject and unit prescriptions. The schools, however, gave colleges abundant significant evidence of the student's readiness for college work. Upon the basis of this evidence colleges selected candidates from the participating schools. The findings of the Commission's follow-up study show that the colleges were able to select students intelligently on the basis of the information provided by the Thirty Schools. These students did their college work at least as well as others of equal ability, failed no more frequently, stayed in college and graduated in equal numbers, and won distinction more often.

The Eight-Year Study has demonstrated beyond question that colleges can secure all the information they need for selection of candidates for admission without restricting the secondary school by prescribing the curriculum. For this

purpose, evidence from such sources as the following would provide ample data:

1. Descriptions of students, indicating qualities of character, habits of work, personality, and social adjustment. Many of the record-forms prepared by the Commission's Committee on Records and Reports are helpful and suggestive in this connection.
2. The results of the use of instruments of evaluation
   a. Such standardized tests as are applicable to the school's work
   b. Other types of tests appropriate to the objectives of the school, such as those prepared by the Evaluation Staff of this Study
   c. Scholastic aptitude tests that measure characteristics essential to college work and are independent of particular patterns of school preparation
3. For colleges that require tests given by an outside agency, records of achievement in examinations that do not presuppose a particular pattern of content. An example is the Comprehensive English examination of the College Examination Board.

An admission plan such as this would not fix the content or organization of the high school curriculum.

If such a plan were adopted generally by colleges, the secondary schools of the United States could go about their business of serving all youth more effectively. Uniformity would be neither necessary nor desirable in the work of the school. One student would develop the essential skills, habits of mind, and qualities of character through studies appropriate to his abilities, interests, and needs; another student would develop the essentials of mind and character through quite different studies. The secondary school would

then be encouraged to know each student well and to provide experiences most suitable to his development. This, in turn, would lead to dynamic school curricula. The static, frozen pattern of subjects and credits would disappear and secondary education would move ahead with other dynamic forces toward the achievement of a greater democracy.

The second major implication of the results of the Eight-Year Study is that secondary schools can be trusted with a greater measure of freedom than college requirements now permit. The Thirty Schools, representing secondary schools of various kinds in many sections, have not abused their greater freedom. On the contrary, many college authorities wonder that these schools did not use their freedom more extensively. It may be thought that the participating schools were restrained from wild experimentation by the college members of the Directing Committee, but such was not the case. In fact, they have constantly urged the schools to greater adventure. However, custom is deeply embedded in secondary education. It is not easy to break down traditional patterns of thinking and acting, nor do teachers create new ones readily.

Perhaps the chief reason for confidence in the schools' use of freedom is to be found in the genuine sense of responsibility which most teachers feel. They are conscious of the far-reaching consequences of their work. Because of this sense of duty they do not turn lightly from practices of proved worth to engage in irresponsible experimentation. If some in the colleges feared that the Thirty Schools would use their freedom recklessly, they now know that their fears were without foundation.

Without exception the colleges involved state that this

Study has been very much worthwhile. Although there may be doubt concerning some of the innovations in the schools, the colleges are unanimous in recognizing the growth which the schools have achieved through participation in the enterprise. The Thirty Schools fervently hope that their new work can be continued and developed more fully. This can be done only if their present freedom is not taken away from them.

The existing agreement between the Thirty Schools and the colleges expires in 1943. "What will happen then?" the schools are asking. Will it be necessary to give up the new work, which the schools are eager to carry on, and return to prescribed courses and a static curriculum? Perhaps the colleges would be willing to extend the agreement with the Thirty Schools beyond 1943, but neither the Schools nor the Directing Committee favors continuing an arrangement involving only these schools. They hope for extension of the freedom which the member schools now have to competent schools everywhere.

This can be done. As has been suggested in these pages, three steps should be taken:

First, until the purposes of general education in the liberal arts colleges are clearly defined and plainly stated, subject and unit prescriptions and entrance examinations that prescribe the content or organization of the secondary school curriculum should be discontinued.

Second, the knowledge, skills, habits, and qualities of mind and character essential as preparation for college work should be ascertained by colleges and schools co-operatively.

Third, a plan of admission should be adopted which provides the college with needed information concerning candidates, but which does not prescribe the content or organization of the secondary school curriculum.

Should these three steps be taken great progress would surely come in both secondary and higher education throughout the country. Upon this new and sound basis schools and colleges would develop relations which would bring them together in mutual respect and understanding. Professors from the colleges and teachers from the schools would sit down together often to think and plan for the education of American youth. They would learn from each other. They would understand better one another's purposes and problems. Theirs is a common task, the teachers at one level, the professors at another. By deliberating together they would see that task more clearly and perform it more effectively.

During the eight years of the Study many school-college conferences have been held. They have always resulted in increased mutual regard and confidence. For many college professors and school teachers it was a new experience to spend two days together in an atmosphere of friendly cooperation around the conference table. This sort of experience should not be rare; it is as necessary as any other conference with one's colleagues. Neither the school nor the college can understand fully or render adequately its service to youth apart from the other.

The failure of schools and colleges to co-ordinate their work has resulted in enormous waste of time, effort, and money. The tragic consequences to thousands of boys and girls are beyond all measurement. But wastage of the nation's material and human resources need not continue. By taking time to know each other and by seeking together for solutions of common problems our institutions of secondary and higher education can bring their *united* strength to the service of the nation.

The Schools Counsel from their own Experiences

Early in the Eight-Year Study the member schools and the Commission promised to give a frank account of their experiences when the project came to its end. They said they would tell of mistakes and failures as well as successes, and they agreed to reveal the difficulties and problems they encountered along the way. Anyone who has followed the story of the Study in this volume or delved more deeply into the other four volumes of the Report must be aware of the frankness and sincerity of the hundreds who have been engaged in this attempt to find better ways of serving American youth. Although the schools' experiences have differed in many ways, it is possible to record some that have been fairly common and to draw out of them some lessons which may be helpful to other schools about to undertake the difficult task of reconstruction.

Before summarizing the experience of the Thirty Schools, let it be said again that they do not pose as model schools. They do not claim to have solved all problems, nor do they think they "know all the answers." They realize that many other schools, not included in this Study, have been engaged in the same task and that their contributions to the improvement of secondary education probably are just as important as the achievements of the schools which have participated in this project.

The members of the Directing Committee and the teachers and administrators in the Thirty Schools have learned from the experiences of these eight years that effective secondary school reconstruction requires thorough preparation.

This takes time. The schools which plunged into change without taking time to think their problems through often found it necessary to go back to the beginning and start

over. This caused confusion and uneasiness which might well have been avoided.

Thorough preparation demands co-operative deliberation. Piecemeal revision by individual teachers or subject departments usually is disappointing. Every teacher's work is significant in its relation to the whole effort of the school. Therefore, any important change in any part of the school's work should be made only as one move in a comprehensive plan. Administrators, teachers, parents, and students should unite in the thinking and planning which should precede any revision of the school's work.

All teachers should participate. When the Eight-Year Study was started, some schools selected a few members of the faculty for the new work; the others, who were not consulted, felt left out. This resulted in division and misunderstanding. In some schools it led to jealousy, bitterness, and sabotage of the new work. This unhappy state of affairs has long since disappeared in almost all of the schools, but it is a danger which can and should be avoided by giving every teacher an opportunity to share fully, to advocate or oppose change, to voice his convictions whatever they may be. Complete agreement is desirable and is sometimes reached by means of thorough discussion. However, unanimous decision is not essential. New work may be developed satisfactorily and without faculty dissension if every one shares in the deliberations which lead to change.

Parents, too, must share in preparation for high school changes. The schools which did not draw patrons into the planning which preceded revision encountered parental misunderstanding. Unwarranted criticism and opposition were the results. In some instances worthy innovations had to be abandoned because of censure. This could have been avoided if these schools had taken pains to secure parental

participation in the thinking which led to change in the curriculum. Moreover, these schools did not have the good counsel that many thoughtful laymen can give. Others of the member schools took parents into their confidence, consulted with them as plans were developed, and gained the strength of their support in new undertakings. Out of these happy and unhappy experiences the Thirty Schools have learned that no school is fully prepared for reconstruction unless the co-operation of parents has been secured.

Adequate preparation involves research. Before any school revises its work the faculty should study the community the school serves and the needs of youth in that community. The results of research elsewhere should be studied carefully for their application to the local situation. The services of specialists and experienced curriculum consultants should be secured if possible. Above all, the faculty should reexamine the democratic tradition, clarify its meaning, and consider its implications for the school in every phase of its work.

No teacher or school is fully ready for constructive change until plans for appraising results are carefully formulated. The school should find out whether changes in curriculum and methods of teaching achieve purposes more effectively. The Thirty Schools emphasize the necessity of taking time to secure all possible evidence of student progress and to study that evidence searchingly for clues to further action. Equally important are adequate means for recording and reporting all significant aspects of pupil development. Evaluating, recording and reporting are inextricably interwoven in the whole fabric of education. Therefore, they cannot be ignored in any sound preparation for educational reconstruction.

The Thirty Schools have learned that thorough prepara-

tion for revision requires honest belief in exploration and experimentation as a method of educational progress. This means that principals and teachers must have an abiding faith in the possibilities of youth. They should be able to see in each boy or girl the potential self-supporting, well-adjusted man or woman of individual dignity and worth. It means, also, that the school believes sincerely in the possibility of continuous improvement of its own work—that nothing is so well done that it cannot be done better. No teacher is ready to contribute to educational progress unless he is willing and able to reconsider and call in question whatever has been taken for granted. Open-minded analysis of assumptions is a strong stimulant to vigorous, constructive thinking.

Constructive thinking requires the capacity to break up one's customary patterns of thought and to create new ones. This is especially necessary in those who would see education afresh. Usually education is thought of in patterns of school buildings, classrooms, classes, textbooks, courses, grades, credits, diplomas. It is only when these paraphernalia of education can be pushed into the background of one's mind that realistic thinking becomes possible. Only then is the teacher able to see the student as a young human being growing up in a very complex and difficult world. And only then can the teacher begin to see clearly and constructively what the school should be and do.

Experience has taught the participating schools that no school is ready to advance until teachers have a sure sense of security in adventure. They are safe in following tradition; they must be sure that they will be equally secure in departing from tradition. Only then can they maintain their personal and professional integrity and grow into the fullness of their stature as teachers and personalities.

Pleasant surroundings and favorable working conditions facilitate preparation for secondary school reconstruction. A modern, commodious, well-equipped building, spacious grounds, freedom from traffic noises, adequate libraries, laboratories, studios and shops, small classes, a homogeneous student body—these are all much to be desired. But it has been learned that they are not essential. Some of the most significant contributions coming from the Eight-Year Study have been made by schools where few of these advantageous circumstances exist. Without strong conviction on the part of teachers that youth must be better served, no important changes will be made. With that conviction, with leadership, co-operation, imagination, initiative, and courage teachers will move forward no matter how unfavorable the physical environment and working conditions may be.

Out of their experience the Thirty Schools counsel others about to revise their work to take time to see where they are going, to "look before they leap." The high school which co-operatively re-examines, in an open-minded and realistic spirit, its service to its students and community always reaches the conclusion that many important needs of boys and girls are not being met satisfactorily and that something should be done. Then these questions always arise: What part of our work should we surely retain? What part should be discontinued? What new work is needed? Shall we adopt this proposal or another? In what direction shall we move?

Asking these questions, a school faculty might choose an easy solution by copying what some other school had done. They might turn, for instance, to this Report and adopt a revised curriculum which had been developed in one of the schools. Such a procedure would be a serious mistake and the results would certainly be unsatisfactory. Genuine re-

construction does not come that way. All teachers, all faculties must go through the hard experience of thinking their own problems through. The experiences of other teachers and schools can be useful in pointing the way, but no teacher or school can travel for others the hard road of reconstruction. Schools must find their own answers to their most puzzling questions.

These questions cannot be answered intelligently until objectives are determined and clearly stated. Therefore, this difficult task must be attempted. Statements of objectives often have little meaning. Sometimes they are couched in such general terms that they provide no guidance. On the other hand, so many detailed, specific objectives are often listed that no sense of direction is indicated. The member schools encountered both of these difficulties early in the Study. Later when they were asked to restate their objectives in terms of desirable changes in pupils—changes which could be observed or discovered objectively—meaningless generalization and multiplicity of purpose were much less in evidence in the revisions. But this searching question remained largely unanswered: *What* changes in pupils are desirable? Thus the problem of purpose continued to thrust itself into the forefront of the thinking of the schools. They have learned that it cannot be escaped and that sure progress in reconstruction cannot take place in any school until unity and clarity of purpose are achieved.

The purposes of the school cannot be determined apart from the purposes of the society which maintains the school. The purposes of any society are determined by the life values which the people prize. As a nation we have been striving always for those values which constitute the American way of life. Our people prize individual human personality above everything else. We are convinced that the form of social

organization called democracy promotes, better than any other, the development of worth and dignity in men and women. It follows, therefore, that *the chief purpose of education in the United States should be to preserve, promote, and refine the way of life in which we as a people believe.*

This, then, is the conclusion which grew out of the continuing search for guiding objectives in the Thirty Schools. This great, central purpose gave direction. What part of the school's curriculum should be retained? That part which promotes the kind of life we seek. What changes in young people are desirable? Those which lead in the direction of democratic living.

But what is the American way? What are the principles of democracy? These are the questions which individual teachers and school faculties sought to answer. They had to answer them clearly in order to know what the school should be and do, for they had become sure that the school should be a demonstration of democracy in action. This search for purpose and meaning was the turning point for many of the participating schools.

The schools affirm that this concept of the chief purpose of education in the United States leaves no room for provincialism or narrow, selfish nationalism. Our unique privilege as a nation is that of working out here, on this rich and pleasant land, the kind of life of which men of vision, good will, and noble character have long dreamed. Our roots go deep into the past. Our present and future are closely interwoven with the fate of all men and nations. Therefore, if our youth are to know and prize the American way of life, their studies should take them back to its origins and on to the great issues before us in a world in which we cannot live apart.

Because their struggle to achieve clear purpose has proved

to be of inestimable value to them, the Thirty Schools urge every school to search the democratic ideal for principles to guide thought and action in any attempted revision of administration, curriculum, or ways of teaching. That ideal, they say, sets up the guide-posts which point the sure way to reconstruction of every phase of American secondary education.

The school which has prepared itself thoroughly and established its central purpose is now ready to proceed confidently with the arduous task of reconstruction. The Thirty Schools have learned that *effective democratic leadership is essential.* The principal is the one who would be expected to lead. That school is fortunate whose principal has the capacity and skill to be the educational leader. Some principals cannot carry this responsibility. They are excellent executives rather than leaders of thought. Usually such principals recognize their limitations and turn to others for the kind of strength they do not possess. That is often found in some member of the faculty. By close co-operation the principal and faculty leader are able to unite the school in thought and action.

Whatever the conditions are, educational leadership there must be. Although the leader must be a thoughtful educator, he does not do the thinking for the faculty; he stimulates and challenges their thinking. He respects their worth, believes in their integrity, welcomes their best thought, and unites them in the great common cause of making education more fruitful for every boy and girl in the school. He keeps all eyes constantly upon the students.

The pupils, too, have an important part in school reconstruction. To those who have been working with the schools during the eight years of the Study, it seems that the most profound change is the shift in emphasis from subject

matter to the boys and girls themselves. Curriculum content is still important, but only as it helps young people with their problems of living in our democracy. Whatever the school does, finds its value in service to youth. It follows, then, that they should share in making the curriculum. Experience has taught that high school students are well able to share effectively in school reconstruction. Many of them have surprised and delighted their teachers by the mature and constructive thought which they have brought to the problem when they were invited to think with teachers and parents about the work of the school.

Therefore, the participating schools advise taking students into partnership in changing the general life of the school and in revising the curriculum. Their ability to share responsibility in school organization and government has been demonstrated in schools everywhere, but their readiness and capacity for participation in curriculum making have only recently been discovered. In many of the member schools students are now habitually consulted concerning curriculum problems, and teacher-pupil planning is becoming an established practice.

The reasons for pupil participation are compelling. The schools have taken the position that the source of the curriculum is to be found in the concerns of youth and in the nature of the society which the school serves. Therefore, youth should have opportunity to ask that the schools heed their needs and to tell what some of those needs are. An even more vital reason for their sharing is that the kind of life we seek in America can be achieved only by full participation in planning for the common welfare and in meeting common responsibilities. School is the place for youth

to develop the habit of co-operative thought and skill in group action.

Even with competent leadership and effective student co-operation, no school can go very far along the road of reconstruction without freedom to act according to its best judgment. The schools in the Study have had that freedom for eight years. A plan is proposed earlier in this chapter by which all schools may have the freedom essential to progress. When it comes, schools will learn, as the Thirty Schools did, that greater freedom entails greater responsibility for wise guidance of youth. But young people cannot be counseled wisely by the school unless each individual is well known by some teacher. Ways by which each boy and girl can be known intimately have been suggested in these pages.[3] However, intimate knowledge of a student does not of itself bring intelligent guidance. Teachers must have time and opportunity to use that knowledge to the student's advantage. The wisest teachers should have the largest measure of responsibility for counseling. Sometimes specialized, professional advice is needed, but of one thing the schools are sure: that guidance cannot be divorced from the everyday work of the classroom. All teachers share this responsibility.

But who shall give teachers wisdom sufficient for guidance of youth? To that question there is no answer, but the teachers who have become wise through experience say that preparation for teaching should be quite different from that usually provided by colleges of Education. Preparation for teaching in the high school that is emerging should lead to understanding of young people—their urges, drives, concerns, and problems. At the same time it should develop a clear concept of the democratic ideal and insight into the

[3] Chap. II, pp. 37-39.

social problems that must be solved if American society and education are to approximate the ideals which our people hold.

Each teacher needs competence in his own field, of course, but he needs a broader competence. Fusion courses, broad fields, culture-epochs, career-centered courses, core curriculums—all these are designed to meet youth's needs more directly. They require teacher collaboration. This unity of teacher effort demands the breaking down of artificial barriers which have separated teacher from teacher and subject from subject. It also calls for the removal of the limitations which have prevented teachers from becoming truly educated persons themselves. When they work together, they learn from each other. When they consider the whole responsibility of the school, they gain insight into the implications and relationships of their fields of work. Whatever the form of curriculum organization, teachers should work together for common purposes, clearly understood and constantly kept in mind. The Thirty Schools agree, therefore, that narrow subject specialization by teachers, which stands in the way of their co-operation with others and blinds them to youth's needs, should disappear from secondary education.

With the best possible preparation, the teacher will still have to learn through experience how to know, understand, and guide young people. As he works with them day after day in the classroom, his relationship with his students becomes, more and more, that of friendly counselor. To have that relationship, the work of the classroom must be vital to students. Therefore the content of the curriculum becomes extremely important.

What have the Thirty Schools to say now about the curriculum? They have five conclusions to report.

First, *every student should achieve competence in the essential skills of communication—reading, writing, oral expression—and in the use of quantitative concepts and symbols.*

Second, *inert subject-matter should give way to content that is alive and pertinent to the problems of youth and modern civilization.*

Third, *the common, recurring concerns of American youth should give content and form to the curriculum.*

Fourth, *the life and work of the school should contribute, in every possible way, to the physical, mental and emotional health of every student.*

Fifth, *the curriculum in its every part should have one clear, major purpose.* That purpose is to bring to every young American his great heritage of freedom, to develop understanding of the kind of life we seek, and to inspire devotion to human welfare.

This report of lessons learned by the Thirty Schools could be extended indefinitely, but that would be of doubtful value to other schools. However, one other result of the Eight-Year Study should be reported as this record of adventure is brought to a close. Participation in the Study has brought renewed vitality to every school. Whether the school altered its curriculum and ways of teaching markedly or not, whether its contributions to the improvement of secondary education are small or great, each one brings enthusiastic testimony to the extraordinary value of the experience. Out of their attempts to meet a challenge, out of searching study of their own work, out of their struggle to serve youth better, the Thirty Schools have grown immeasurably in educational stature and wisdom.

Throughout the nation there are thousands of high schools, large and small, in city and country, still following tradi-

tion. In these schools, faithful teachers are increasingly aware that their boys and girls are facing urgent problems of living with little help from any source. These teachers are beginning to see that much of the help which youth seeks must come from the high schools; this means that education must take on new responsibilities.

To fulfill these wider obligations schools must have a considerable measure of the freedom that the Thirty Schools have had during these eight years. This freedom was a challenge to the best that was in them. Who can doubt that other schools would respond equally well to the same challenge? As hundreds of teachers in the participating schools discovered in themselves unknown creative powers, so would thousands of others develop new vitality and strength in their attempts to perform new duties. Surely the freedom which produces such results will not long be denied.

The ten million boys and girls now in our high schools cannot carry the nation's burden in this hour of world conflict. That burden is ours. We are determined that the earth they inherit shall not be in chains. Theirs will be the task that only free men can perform in a world of freedom. It will be an even greater task than ours. To prepare them for it is the supreme opportunity of the schools of our democracy.

Appendix

A PROPOSAL FOR BETTER CO-ORDINATION OF SCHOOL AND COLLEGE WORK

May, 1932

Students of education in America know that the elementary school has changed fundamentally in organization, curriculum and procedure within the last decade, and that profound changes are taking place in our universities and colleges. But similar reconstruction in the secondary schools is difficult, if not impossible, under present conditions. Recognizing the need of improvement in secondary education, and realizing that any significant change involves the co-operation of the colleges, the Progressive Education Association appointed, almost two years ago, a Commission on the Relation of School and College. Last December, a generous grant of funds for the work was provided by The Carnegie Corporation of New York.

MEMBERS OF THE COMMISSION

Mr. Wilford M. Aikin, Director, John Burroughs School, Chairman
Professor Walter Raymond Agard, University of Wisconsin
Mr. Willard Beatty, Superintendent of Schools, Bronxville, N. Y.
Mr. Bruce Bliven, Editor, The New Republic
Dean C. S. Boucher, University of Chicago
*Mr. A. J. Burton, Principal, East High School, Des Moines, Iowa
Miss Flora S. Cooke, Director, Francis Parker School
Mr. Harold Ferguson, Principal, Montclair High School
Mr. Burton P. Fowler, Director, Tower Hill School
Dr. Josephine Gleason, Vassar College
Dr. Thomas Hopkins, Curriculum Research Specialist, Lincoln School
Dr. Leonard V. Koos, University of Chicago
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Dr. Vivian Thayer, Ethical Culture School
Professor Goodwin Watson, Teachers College, Columbia University
President Raymond Walters, University of Cincinnati
Dr. Ben D. Wood, Collegiate Education Research, Columbia University

The Commission desires to bring about such changes in the relation of school and college as will permit sound experimental study of secondary education. It is concerned with all students, but especially with those who plan to go to college, and it seeks to establish conditions under which schools may develop more fully in all students a strong sense of individual and social responsibility. The Commission wishes, also, to make it possible for schools and colleges to help each student shape his course so that it will be best fitted to his needs, and so that his work will have meaning and significance for him.

Plan for Co-operation

The following Plan is presented for approval:

A. A small number of schools, probably not more than twenty, will be chosen to carry on experiments in secondary education appropriate to the purpose of this Plan. The number is limited so as not to be unwieldy for experimental purposes. There will be included public and private schools each with funds, faculty personnel and interest, parental support, and administrative leadership adequate to the task. Only schools of highest character and excellence and established reputation will be admitted to this group. These schools will enter into an admissions arrangement (described below) with colleges for an experimental period of five years beginning with the autumn of 1936.

* Deceased.

NOTE:—As this arrangement permits the schools to change their curriculums in the fall of 1933, candidates for admission to college in 1936 will have had three years' experience under the reconstructed curriculum before leaving the preparatory school.

B. A Directing Committee has been appointed to supervise all aspects of the Plan, including the practical co-ordination between schools and colleges and the securing of effective educational procedure. The membership of the Committee, which represents the various types of colleges and schools sharing in the study, is given in the accompanying letter.

As the work develops, the functions of this Committee, in its relations to the schools and colleges involved, will become increasingly clear. At the present time it is plain that its responsibilities will include:

1. Selection of the schools to share in the experiment
2. Examination of plans of work and proposed curricula submitted by the schools
3. Approval, rejection or revision, in collaboration with the school, of plans submitted
4. Working with each school in the systematic study and development of its work as it proceeds and obtaining full and adequate reports from time to time
5. Determining the degree of uniformity necessary or desirable in the work of the schools sharing in the plan
6. Bringing the schools and colleges into close co-operation in guiding each student's work. As soon as a pupil has indicated his choice of a college, it is hoped that representatives of the college will work with the school in studying and counseling the candidates, and that the school will work with the college after the student begins his college career.
7. Suggesting such modifications in college regulations and procedure for the students entering during the five year period under the new arrangement as will conserve the fundamental educational values of the experiment
8. Systematic observation of these students during college and as many years thereafter as seems wise, with the idea of evaluating the work of the schools participating in this study

Selection of Students

Admission to college for the experimental period will be based upon the following criteria:

A. Recommendation from the principal of the co-operating secondary school to the effect that the graduating student (a) is possessed of the requisite general intelligence to carry on college work creditably; (b) has well defined serious interests and purposes; (c) has demonstrated ability to work successfully in one or more fields of study in which the college offers instruction.

B. A carefully recorded history of the student's school life and of his activities and interests, including results of various types of examinations and other evidence of the quality and quantity of the candidate's work, also scores on scholastic aptitude, achievement, and other diagnostic tests given by the schools during the secondary school course.

It is intended that the tests used will be of such character that the results submitted to the colleges will give a more adequate and complete picture of the candidate than is given by methods now in use. A special Committee on Records is now at work endeavoring to determine:

1. what information the college needs for wise selection and guidance of students
2. how that information can best be secured
3. in what form it should be recorded and presented to the colleges.

The co-operating colleges will not be obliged to admit under this agreement all such students as meet the new requirements. However, during the experimental period and from the limited group of co-operating schools, the colleges agree to accept students under this plan without regard to the course and unit requirements now generally in force for all students, and without further examination. The colleges, for this period, agree also that students applying for admission under the new requirements will be considered without discrimination in comparison with students applying from other schools where present requirements are in effect.

Underlying Ideas

The educational emphasis in this Plan is based upon a conviction that the secondary schools must become more effective in helping young people to develop the insight, the powers and the self-direction necessary for resourceful and constructive living. We wish to work toward a type of secondary education which will be flexible, responsive to changing needs, and clearly based upon an understanding of young people as well as an understanding of the qualities needed in adult life.

We are trying to develop students who regard education as an enduring quest for meanings rather than credit accumulation; who desire to investigate, to follow the leadings of a subject, to explore new fields of thought; knowing how to budget time, to read well, to use sources of knowledge effectively and who are experienced in fulfilling obligations which come with membership in the school or college community.

To this end we should like to provide, more fully than the present organization of secondary education permits, for changes such as are indicated under the following headings:

A. Greater mastery in learning:

acquisition of such techniques as reading with speed and comprehension, observing accurately, organizing and summarizing information; ability to work with many kinds of materials; capacity to see facts in their relationships; ability to state ideas clearly; techniques essential as a foundation for later advanced study.

B. More continuity of learning:

the elimination, wherever advisable, of limited, brief assignments and courses; a more coherent development of fields of study; provision for more consecutive pursuit of a particular subject through several years; encouragement (including the devising of ways and means and the allowance of sufficient time in the school schedule) of the desire to investigate; development of the power and impetus to pursue a subject beyond the school requirement, and stimulation of the desire to put ideas to use.

There should be less emphasis on subjects and more on continuous, unified sequence of subject matter, planned on a four-year or six-year basis. English is the only course that at present even approximates

this aim. Continuous courses in the sciences and social sciences would take the place of such fragments of subject matter as chemistry or modern European history. Chemistry has its biological, geological, or astronomical implications that should not be overlooked if the whole of science is to have significance. Similarly, such cultures as those of South America and Asia should have a place in history courses, for comparative study, as well as those of Europe and the United States. Mathematics and foreign languages also, would be reorganized in a manner to enable the pupil to get a "long" view of these fields of subject matter.

C. Release of creative energies:

through experience and training in various arts, including both practice and appreciation (ex: painting, modeling, writing, drama, music); through the encouragement, in all work, of independent, individual thinking and of fresh combining of thought; through providing opportunities, with guidance, for young people to exercise their desire to do something "on their own" (ex: tinkering, inventing, constructing, special pursuits in reading, instrumental music).

D. Clearer understanding of the problems of our civilization, and the development of a sense of social responsibility:

through including, in the curriculum, studies bearing upon specific problems of American civilization and that of the modern world, and the outstanding individual and collective efforts to solve these problems; through using every opportunity to help students to realize the interdependence and inter-relationships of human lives; through helping students to develop social responsibility, in feeling and in practice as well as in appreciation of the issues involved, by means of such activities as participation in school community life with concern for the general welfare, discussion groups on social and economic problems, field trips to study industrial processes, housing conditions, or the machinery of government; a model league of nations, or assembly programs which require, as do all the foregoing activities, much reading and investigation in the broad fields of social relationships.

E. Revision of curriculum materials and their organization:

besides the changes in curriculum materials to be inferred from the above-mentioned changes in practice, such other experiments as: reorganizing the sequence of material in different fields of knowledge, for secondary education (ex: mathematics, science, history, language);

unifying the subjects of study and removing some of the boundaries now existing between closely related fields (ex: history in its relation to the facts of economics, geography, literature and fine arts); addition of new materials from fields of knowledge not hitherto included in typical secondary school curricula (ex: certain materials from the fields of economics, anthropology, geology).

F. Guidance of students:

The function of guidance in education needs much greater study and emphasis. While it is important that the student should have as much independence and responsibility as he can use wisely, counsel of the best sort should be available when he needs it. Some one should know him well and be able and ready to examine his problems with him and to help him solve them. He should be helped to see his career through school and college as a developing experience, with each phase in a definite relationship toward the whole.

Under the Directing Committee, plans will be worked out to achieve this purpose. The program will include: more thorough study of the needs of individuals, with corresponding adjustment of the school program to their needs; record-keeping for later analysis; more intelligent preparation of the student for the use of the opportunities provided by the colleges.

G. Teaching:

It is evident that the changes in secondary education suggested in this memorandum cannot occur without teaching of a very high quality. This would be true of any experimental work. We fully recognize the scarcity of teachers who are qualified in background, in training and in personality for this type of work. There are, however, some teachers now at work who could successfully carry through the suggested program. Some of these are already studying its possibilities. Others will be discovered as the work is begun.

Schools, colleges, and universities that are undertaking the training of teachers will be interested in helping select the most promising candidates and in training them in the best possible ways for this work. We fully realize that the discovery and training of better teachers must go hand in hand with wise experimentation, and that experiments must move slowly enough to keep within the limits of available good teaching.

(NOTE: This Committee's analysis was made before the Study was complete, but final results confirm the conclusions drawn by these well-known college officials.)

REPORT BY HERBERT E. HAWKES
DEAN, COLUMBIA COLLEGE
MEETING OF THE ASSOCIATION OF AMERICAN COLLEGES

PHILADELPHIA—JANUARY 10, 1940

Some seven years ago the Commission of the Progressive Education Association on School and College Relations was organized under subventions from the Carnegie Corporation of New York and the General Education Board. One of the most important questions on which this Commission, which is usually referred to as the Eight-Year Study, wished to obtain reliable evidence was that of the relation between the pattern of the preparatory school program and college success. Thirty schools of various types were selected for participation in the Study, some of them known as very progressive, others as relatively conservative. Liberal arts colleges from every part of the country were almost unanimous in expressing their willingness to admit from these schools, during the eight-year period of the Study, students who seemed competent to carry the work of the college successfully, without reference to specific requirements for admission.

Seven of the eight years have passed, and many students who entered the Thirty Schools when the Study started have now completed three years of college work. Students in the following years have completed two and one year respectively, of college residence. There is now available a wealth of information as to the college success of these students who received their preparation in the Thirty Schools. Many predictions were ventured at the beginning of the Study, but only recently do we have a real ground for conviction.

It should be stated that many of the Thirty Schools modified

their curriculum radically after entering the Study; others have made only slight changes. So far as I know, none of the colleges which these students have entered have modified their curriculum or requirements for their degrees for these students as a group. That is, we have light on the question as to whether the work of these schools which most of us would classify as progressive schools, and the character of the teaching and general experience in these schools, fits or misfits students for college work.

About 2,000 students from the Thirty Schools entered college in September of each year from 1936 to 1939 inclusive. Of these students, 1,475 were enrolled in about 30 colleges in sufficiently large groups to justify a detailed following of their success during their college residence. It should be mentioned that the Thirty School graduates score distinctly higher on aptitude or intelligence tests than the average entering student. So far as one can judge, their mean is in about the 65th percentile. It was therefore necessary in determining the college success of these students, to set up a control or comparison group in each college in which each Thirty Schools student is matched as exactly as is humanly possible in terms of age, sex, race, aptitude, interests, size and type of home community, and family background. It goes without saying that such a comparison group does not furnish a perfect statistical control, but it is probably as nearly perfect as the measurement of college success in terms of instructors' grades.

The earliest basis for comparison appears when these students present themselves for placement tests in order to determine whether they ought to be promoted above or demoted below the point that their raw entrance records would indicate. Results on this point are only fragmentary and from three liberal arts colleges in state universities. In these three institutions, 41 Thirty School graduates were exempt from the usual freshman courses in English, foreign languages, history, or chemistry, as against 26 in the comparison group. Six Thirty Schools students were required to repeat courses on the basis of the placements, while two of the comparison group were so required. This is not a complete or a surprising result, since the Thirty Schools graduates might be expected to have concentrated more intensely

during their preparatory school course on the subjects of their greatest interest.

In order to obtain a comparison between the Thirty Schools graduates and their mates in the control group, members of the staff of the Eight-Year Study have visited the institutions where any considerable number of the students were registered in order to become personally acquainted with them and with their controls, so that they might reach as well considered opinions as possible regarding their adjustment to the work of the college, and the measure of success that they attained, both in their studies and in their social relations. Comparisons in each of the major fields of study between the Thirty Schools graduates and their control mates have been made with scrupulous care. I will not go into the statistical results at this time. Sufficient to say that a comparison of the 1,475 students from the Thirty Schools, which were about evenly divided between the sexes, indicates very little difference in college grades between them and their controls. On the whole, the students from the Thirty Schools were superior to the control group. Those who have been in college for three years excelled slightly in the humanities, the social sciences, and the physical sciences. The grades were almost exactly even in English and the biological sciences. They were distinctly inferior in the foreign languages, but distinctly superior in such subjects as fine arts, music and the like. I will not attempt to analyze the results for those who have had only two or one year of college experience, except to say that the students from the Thirty Schools who entered in 1938, and whose college records for only one year are available, excel their controls from the other type of school in every field of study, notably in English, humanities, physical sciences, and mathematics. This may reflect the careful job that the faculties of the Thirty Schools have done during the past three years in improving their curriculum, and affording a more adequate intellectual training for their students.

One further observation is interesting. A report on the college success of the graduates of the six of the Thirty Schools whose programs differ most from the conventional pattern is compared with that of their comparison groups. A complementary report

has been made on the college success of the graduates of the six of the Thirty Schools which differ least from the conventional pattern as compared with their matched pairs. There were 361 students from the least conventional six schools, and 417 from the most conventional schools. It turns out that the students from the least conventional schools excelled their controls by a score that may roughly be expressed as 27 to 7, while the students from the most conventional schools of the Thirty were excelled by their control group by a score that may roughly be expressed as 14 to 16. That is, so far as these data are significant, the students from the schools whose pattern of program differed most from the conventional were very distinctly superior to those from the more conventional type of school.

I should add that in extra curricula interests non-athletic in character, the graduates of the Thirty Schools were markedly more alert than their comparison group.

The results of this Study seem to indicate that the pattern of preparatory school program which concentrates on a preparation for a fixed set of entrance examinations is not the only satisfactory means of fitting a boy or girl for making the most out of the college experience. It looks as if the stimulus and the initiative which the less conventional approach to secondary school education affords sends on to college better human material than we have obtained in the past.

I may add that this report to you has been approved by a Committee of the Commission on School and College Relations consisting of the following membership: President Barrows of Lawrence College, President Park of Bryn Mawr, Dr. Gummere of Harvard, Dean Speight of Swarthmore, Dean Brumbaugh of Chicago, and myself.

HERBERT E. HAWKES, Chairman

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