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SECONDARY-SCHOOL
PRINCIPALS**

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**Proceedings of the
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Secondary-School Principals
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CLEVELAND, OHIO**

February 25, 26, 27 and 28, 1929

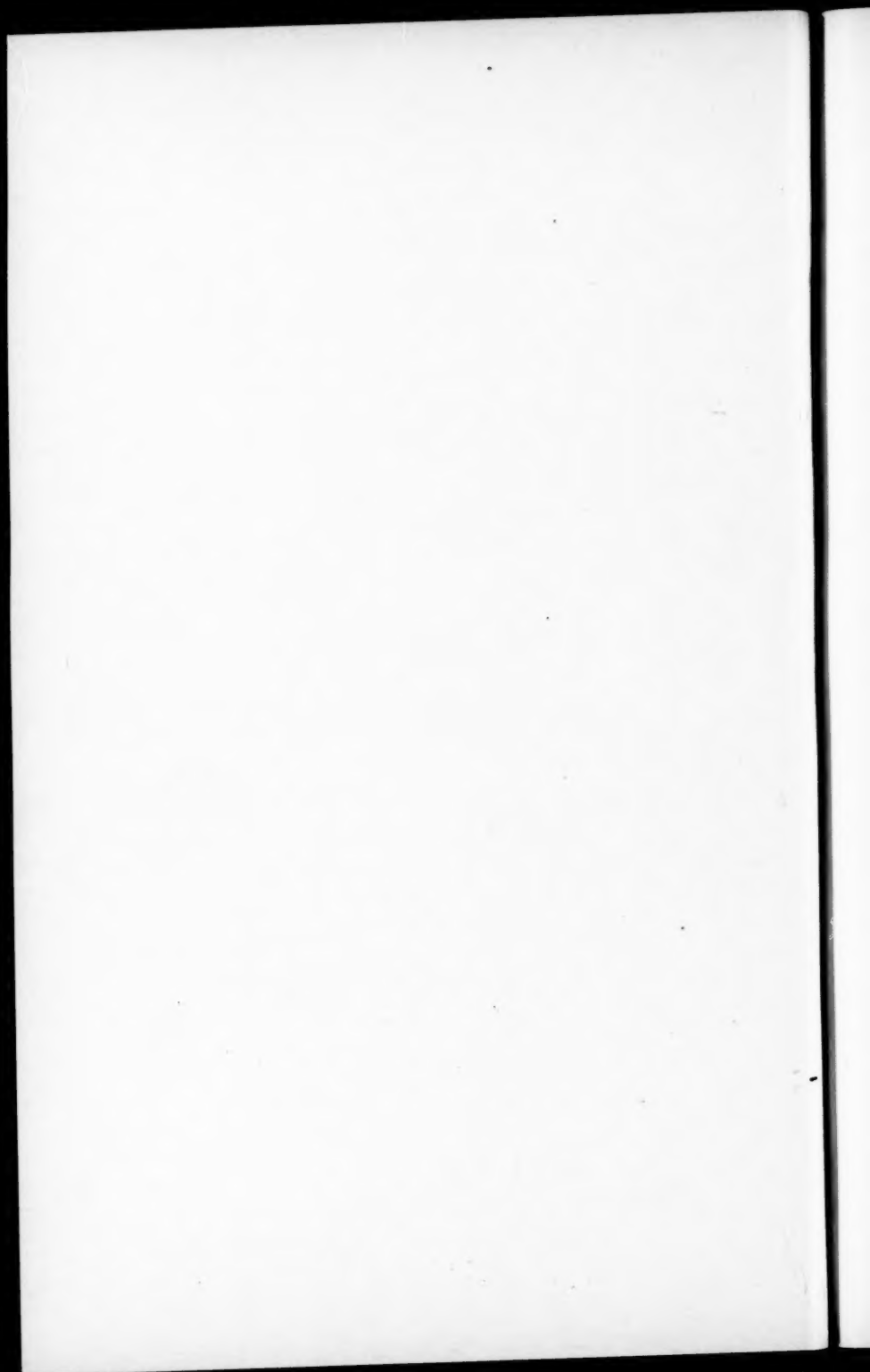
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**THE DEPARTMENT OF
SECONDARY-SCHOOL PRINCIPALS
OF THE NATIONAL EDUCATION ASSOCIATION**

**H. V. CHURCH, *Secretary*
3129 Wenonah Avenue, BERWYN, ILLINOIS
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CICERO, ILLINOIS**

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THE DEPARTMENT OF
SECONDARY-SCHOOL PRINCIPALS
OF THE
NATIONAL EDUCATION ASSOCIATION



Proceedings of the
Thirteenth Annual Meeting of the
Department of
Secondary-School Principals

of the
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at

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on

February 25, 26, 27 and 28, 1929



Edited by
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Secretary of the Association

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1929-1930

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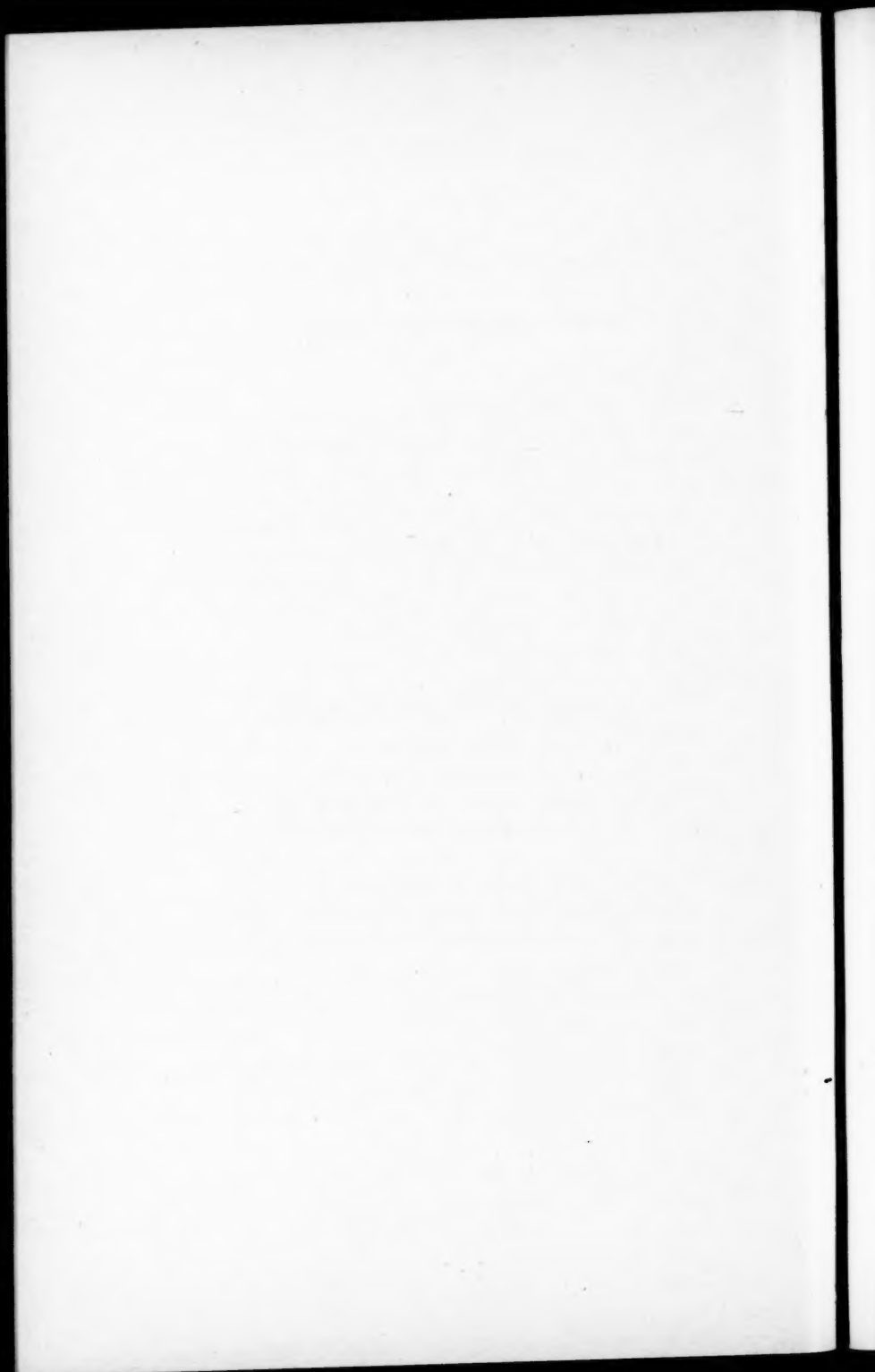
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THIRTEENTH ANNUAL MEETING OF THE DEPARTMENT OF SECONDARY-SCHOOL PRINCIPALS

The thirteenth annual convention of the Department of Secondary-School Principals was held in Cleveland, Ohio, Monday, Tuesday, Wednesday, and Thursday, February 25, 26, 27, and 28, 1929.

SENIOR HIGH-SCHOOL SECTION

FIRST SESSION

The first session of the thirteenth annual meeting was called to order at 2:11 P.M., Monday, February 25, 1929, in the Cameo Room of Hotel Winton by the President of the Department, J. Stevens Kadesch.

Frank D. Boynton, President of the Department of Superintendence, Superintendent of Schools of Ithaca, New York, brought greetings of welcome and a paper on *Advisory Control of Schools* which he read from manuscript.

ADVISORY CONTROL OF SCHOOLS

FRANK D. BOYNTON,

SUPERINTENDENT OF SCHOOLS, ITHACA, NEW YORK

"Teachers more than financiers or captains of industry realize that, unless we develop through present day education and training a generation able to cope with the problems of the future, the United States will turn into a Russia with a Lenin or into an Italy with a Mussolini." Such is the recently expressed opinion of Mr. Roger Babson, eminent statistician, speaking before the Massachusetts Schoolmasters Club of the rapidly changing conditions in present day society and industry.

Whether or not one shares his apprehension as to the possible fate of the United States, one can agree heartily with his recognition of the superior perspicacity of the teacher over that of the industrialist or the financier in the field of education. In matters pertaining to the study and training of youth, teachers are at last coming to be recognized as experts whose recommendations in the educational field are to be followed as are the physician's in medicine, or the lawyer's in legal matters, or the engineer's in matters of construction.

In other words, education is winning recognition as a definitely established profession whose practitioners, having mastered a certain field of technical knowledge and a definite technique, are entitled to recognition as professionals, and in many cases as experts, and have a right to demand that they be freed from the burden of lay interference heretofore imposed to an extent that no other profession would tolerate.

It is inevitable and entirely desirable that with the increasing development and organization of the teaching profession, this body of trained workers shall exercise a growing influence and direction of legislation in the educational field. From them youth has nothing to fear. They are the guardians of the rights of childhood. In every state of this union the teachers have been found on the side of the children in all matters pertaining to their health and welfare. They believe that every child should be born and live under conditions of health and be free from injurious labor, and that he should have full opportunity through education to develop whatever of talent he may be endowed with. They have steadily opposed those industrialists who "by resolution and supporting appropriations" boast of fighting compulsory education and child labor laws in every state of the union and loudly assert the right of a fourteen year old child in the sixth grade to determine whether he needs further education. Teachers are the implacable foes of those who, interested not in human welfare and an everyday application of the Golden Rule to all men but in a dependable source of cheap labor, stand ready to short circuit their fellows and to coin the birthright of childhood into coupons, sending their own children meantime to private schools and loudly decrying the expense of public education.

And the teachers have not made their fight for the rights of childhood from merely selfish motives. A little time ago I saw a letter written by a representative of one of these "interests" anxious about the education of youth and its possible effect upon the supply of cheap labor. The writer admitted frankly that the interest of his industry in education was selfish, adding, "just as superintendents are interested in education because of their selfishness." I really wonder if he believed the cases parallel, or if it were not an exhibition of spleen? Certainly exerting one's influence either individually or through organization for the wider extension of educational opportunity offers small hope of increasing one's individual salary as teacher

or superintendent. On the other hand, exerting one's influence as an industrialist to curtail educational opportunity as a means of assuring an adequate supply of cheap labor has for its primary and sole purpose the increasing of one's personal profits. No, the cases are not parallel. When the men engaged in industry and in the other professions will accept the same compensation that teachers receive; when at the end of their careers they will turn over their keys and the results of their life work to strangers with no vested interests to pass on to those they love and leave behind save what they have been able to save from the pittance received as wages—then and not till then can they afford to invite comparison between their motives and the motives of the teaching profession.

There is a point at which self-immolation ceases to be a virtue. Even in the teaching profession there comes a time when the profession can render its best and largest service to humanity by safeguarding the interests of its individual members as well as those of its wards. As a matter of fact, these interests are inseparable, and the time has arrived when both can be best served, can only be adequately served, through organization which will not hesitate to use its power when and as occasion demands.

There is at present a vast amount of organization in the field of education; but its purpose has been predominantly the improvement in professional equipment of its individual members. The result has been a growing public recognition of these organizations as bodies of experts better qualified to advise with reference to educational legislation than any other group; and this recognition has naturally led the organizations themselves to an increasing realization of their own power and a growing ability to use it. Already in several states teachers maintain a central office at the state capital, and the profession maintains national headquarters at Washington. Through parent-teacher associations and other child-welfare organizations with which they maintain more or less close affiliation, they are exercising a steadily increasing influence upon legislation. In some states teachers are already so well organized and financed that it is exceedingly difficult to pass laws affecting educational procedure to which they are opposed.

And already certain "interests" are vociferously denouncing the "teachers' lobby." That teachers should maintain a lobby seems some-

how to convey a peculiar shock to their sensibilities. Now just why? There are lobbies and lobbies. Whether a lobby is socially desirable or socially reprehensible all depends upon the motives which actuate it and the methods by which it conducts its business. Every great economic and industrial enterprise, every sort of selfish "interest," maintains at Washington and at state capitals well paid lobbies. Groups interested in tariff revision, in public utilities, in insurance, in a thousand and one industrial enterprises, send their representatives to hover about the legislative halls at each legislative session. No hesitation here about bringing "influence" to bear on statesmen. To the protests of any of these "interests" against the teachers' lobby, therefore, the sufficient answer is the reply of Shylock: "The villainy you teach me I will execute." Lobbying is as legitimate an activity of one group as of another; and thus far certainly the teachers' lobby, so far as there may be said to be one, has avoided the scandals which smear many a page of the record of other lobbies. To the silly argument that because teachers are public servants paid from public funds the maintenance of a lobby to further their interests is shockingly out of place, it is sufficient to reply that the public also rides on railroads, takes out insurance, buys silks and gasoline, uses electricity, has accounts at banks and department stores, and buys shoes and automobiles as well as education. When all these "interests" abolish their lobbies and keep out of politics, there will be less need of a teachers' lobby to safeguard the rights of childhood and their own.

As a matter of fact, what is needed is bigger and better teachers' lobbies. Through our organizations and leaders, through state departments of education and other child welfare organizations, we should bring increasing pressure to bear on educational legislation. Too long have we left this great responsibility to those whose major interests lie in other fields. That is why education is to-day the most inadequately financed of any of the great public enterprises. That is why teaching is proverbially the most poorly paid of any of the professions—ridiculously paid when we consider the returns given to correspondingly capable persons engaged in industry and business. If we are to hold in the teaching profession men and women of outstanding ability, this situation must be changed.

Since I have been superintendent of schools in Ithaca I have known a man, starting with me at my salary level, to rise in manufacturing to a financial position where, sitting on the same board of directors,

I have seen him write and give away a check for a sum greater than my city ever paid me for a year's work; I have seen a notions merchant, beginning in a small way in the same city and at the same time when I began my career as a high-school principal, steadily expand his business until to-day he is rated by Bradstreet as being worth a half million dollars; I have seen a pupil of mine enter upon business in a small news stand and retire in early middle life, a wealthy man, driving a Cadillac while I must toil on notwithstanding the accumulation of years on the Ford level. This experience can be duplicated in every city in every state of the union. I would not be misunderstood. I feel no personal envy of these men nor of the thousands they represent. I am not grieved that not one of the fifteen hundred new millionaires reported in 1927 was a teacher. But unless society can be led or driven into offering rewards for the training of its children more nearly comparable to those it is willing to pay to the makers of its automobiles, it must expect to see a large proportion of its finest potential teaching ability expending itself in business and industrial enterprise. Isn't it a fair question, even if disturbing to the established order, to ask: Are these material things more important than the training of youth in which is wrapped up the general welfare?

At present it would seem that the way out is through organization, through the selection of leaders of ability and courage, and through the adoption of all legitimate methods which other interests and blocs have used successfully. Thus may we hope to hasten the day when bankers and manufacturers cease to draft the laws for the control of public education. We have been piously told that ours is a noble profession. Let us make it an effective one for the protection of our own interests and the interests of the youth entrusted to our care. Let us remember that when we entered upon the profession of teaching we did not lay aside a single duty, responsibility, or privilege which other citizens enjoy. We are still Americans with all the rights and privileges thereunto appertaining. Let us not be deterred from using them effectively by any cry of "Wolf, wolf" from the camp of the interests."

Elbert K. Tretwell, Professor of Secondary Education, Columbia University, read a paper on *The Responsibility of Supervision*, prepared by Thomas H. Briggs, Professor of Secondary Education, Columbia University.

THE RESPONSIBILITY OF SUPERVISION

THOMAS H. BRIGGS,

PROFESSOR OF EDUCATION, TEACHERS COLLEGE,
COLUMBIA UNIVERSITY

The case for supervision is made. Repeatedly in educational meetings and literature it has been argued with cogency and without any effective attempt at refutation that it is advisable, desired, and necessary. Occasionally some individualist has expressed a fear that it would restrict the ingenuity or inventiveness of teachers, but this "fear" has been more academic than the result of unskilled activity on the part of a supervisor. This contingent objection is almost the only one that can be recalled from the profession. The layman, when his attention has occasionally been called to the matter, has said that he can not understand why trained teachers need supervision, overlooking the fact that successful business provides in stores, manufacturing, hospitals, and research laboratories an amount of it that we have never even thought of providing.

Let us sum up the chief reasons why supervision—that is, a systematic effort to improve teaching—should be provided in our secondary schools.

It is necessary, first of all, that the principal know in considerable detail what is attempted and what is accomplished in the classrooms. In his visits, which should seldom last less than half a period, he observes weakness and deficiencies in the teachers, of course; but primarily he is looking for their strengths, for their successes, and for their promise. A knowledge of these builds up his own working capital, from which he can draw to aid those who are in need of specific help. It also reveals the lines that he will follow in developing those who have already manifested power. Few if any teachers are equally good, or can be made equally good; in all phases of their work. Each one can most easily be aided in growth and effectiveness by a recognition of strength and promise, by direction and encourage-

ment, and by increased responsibility in what he can do best. This results in morale and makes him receptive of later attempts by the supervisor to aid him in overcoming weaknesses. It is far wiser to develop a faculty each one especially strong in some special aspect of teaching than to attack weaknesses and possibly secure a group of mediocrities. The principal visits classes, then, that he may be informed of the work of the school, that he may add to his own capital by constantly learning details of good teaching, that he may discover, recognize, encourage, and direct strength and promise, and that he may know the needs of the student body.

Supervision is necessary that the work of all teachers shall be coördinated with the philosophy on which the school is built. Far too often philosophy is considered a body of abstractions to be puzzled over, verbally accepted, and neglected. Here the term is used to mean the common sense conception of what education is and what the special functions of the secondary school are. We have been so busy during the past decades in providing buildings, in taking care of the multitudes of youth whom a sort of educational evangelism has persuaded to continue in the schools, and in inventing and using clever devices of numerous kinds that we have unquestionably neglected the fundamental philosophy. The time has come when the problem must be recognized and far more definite conceptions of large objective must be formulated and used. A philosophy is of no value—indeed it does not really exist—unless it is constantly used to direct all the details of the program.

If a principal sets himself to formulate for his own use a clear, common-sense statement of what education is and of what his school should specifically attempt to do, he may be wrong, judged by the final decision, if there ever be one, of the best minds; but whatever his formulation he will be on a far sounder foundation than most administrators of schools now are. At least his statement of the purposes of education and of the special functions of his school will furnish something with which the work of all teachers in all departments may be coördinated. If coördinated with that, they will be coördinated with each other. Much effort is now made by principals to articulate the work of the teachers, especially of those in the same academic departments. This is commendable, of course, and it recognizes indefensible waste; but it should be obvious to any but superficial thinking that fundamental articulation is possible only after the

ends of education and the special functions of the school are clearly formulated.

The principal as supervisor, then, must be not only a leader in educational thought—a philosopher, if you please—but a coördinator of all work of the school with objectives. However skilled a teacher may be, he can not envisage the whole institution in which he works as well as can the principal who continually visits all classrooms and studies the activities in each as a contribution to the ends for which the school is established and maintained. This is another important function of the supervisor.

Visiting of recitations has a very natural effect: it tends to keep each teacher at his best. It is a characteristic of all normal human beings that they like to appear well before another, especially if that other is a superior. It is easy enough to say that conscience, duty, or ambition should hold every teacher to his best all the time. To a considerable extent they are effective. But just the same we recognize the stimulating effect caused by the possibility of the superior officer's dropping in at any time to observe work. If that superior officer has the confidence, respect, and even the affection of the teachers, no harm can possibly result.

Supervision gives another point of view. Often—we may even say usually—a teacher knows more about his subject and about his students, especially in relation to that subject, than the principal can. And yet another point of view may reveal something of importance that has not been discovered by the teacher. We have all had experiences that illustrate the point; we all like to talk over our problems with others because of the hope that a different point of view from ours will contribute to their solution. A principal worthy of the name is not entirely ignorant of any work in his school; his training, his reflection, his experience, his observation of many other teachers have resulted in an accumulation of knowledge and of wisdom from which he can often draw to help even the most skilful of the teachers in his charge. For the younger and less skilful how much more helpful he can be. Both will profit by his suggestions and be eager for them when they realize his competence to help and his desire to build up and strengthen rather than activity in "rating" and in criticizing without constructive help.

The principal must visit and supervise the older and more skilful

teachers just as conscientiously as he does the younger and less skilled, partly for the reasons already stated, and partly that it may be possible for him to help the more needy without embarrassing and alarming them by his efforts. If he visits the classes of all teachers alike, there is nothing invidious in his attentions; but if he should confine himself to the less skilful, he would advertise their deficiencies and his lack of confidence in them. It is true that supervision is likely to make a greater improvement with less effort in beginning teachers; but it should not be forgotten that a small increase in the effectiveness of those already skilled may absolutely be of more importance to the school.

Granting, then, for these and for other reasons that might be given, that supervision is desirable or necessary, let us ask who is responsible for it. To that question there is only one answer; the principal. He is the selected leader of the school, the director of all of its activities, and the most important of these is the education of the students. Of course he has many other duties, but all of them are subordinate and should be contributory to this. A school is organized that it may be administered; it is administered that it may be instructed. Any other conception may result in an organization that is beautiful in itself, or in administration that is remarkable for its smoothness; but unless they are designed to facilitate and produce an improved type of education, they are ineffective. Strangely and tragically enough we have known men who were geniuses in organizing others and in administering the mechanical details of a school without at the same time having a vision of what it was for or apparently without deep concern for and interest in the profound problems of education. Such men were miscast as principals of schools. It may be questioned, however, if they would be successful in any business unless they were subordinated to some one who was concerned with the nature and quality of the output. It may be that we have been passing through a period of such rapid growth that organization and administration were of first importance to provide the machinery and to keep it running; but certainly now we have reached the stage when the business of education is sufficiently advanced that everything—organization and administration alike—shall be tested and revised in terms of the desired output.

As the principal is the responsible head of the school, his chief concern is the establishment of goals and the improvement of the

means of achieving them—of achieving them surely and economically. Before such an obligation one may well quail; but ability in just these matters is the test of worthiness to hold the position of leadership in the school. Directly through his own efforts or indirectly through selected subordinates the real principal must accept as his primary responsibility the improvement of education. The major part of his energies must be directed toward this end.

The several studies that have been made show unfortunately that far too small a portion of the principal's energies are thus directed. Why? There are four major reasons, all interwoven and usually acting together. In the first place, there has been too little conviction on the part of principals that supervision *is* their prime duty. They have perhaps heard the arguments that it should be and have given verbal assent to them; but that is a very different thing from being so convinced that they subordinate everything else to this obligation. It is like getting religion: what one does afterward is the only criterion of importance.

A second reason is that there is no tradition supporting and forcing supervision. Neither the public, the board of education, the superintendent, nor the faculty is so accustomed to a principal who is active in improving education in the school as to bring pressure upon him when he is not. Indeed, in many communities all parties would be surprised and in some instances highly critical if the principal should neglect some petty detail to which they were accustomed in order that he might devote himself to the setting of educational goals and the improving of instruction. As a matter of fact, there is considerable tradition opposing supervision. One principal of a large city high school declared, "If I should attempt that, my teachers would rebel in protest." Fortunately among experienced principals this man is one of a fast-increasing minority. The good principal makes his traditions. Once experienced, helpful supervision is demanded by teachers and the public alike. The great disadvantage of supervision is that its results are so intangible, hard to see or to measure, and often remote in time. The public can see and appreciate the smooth running machinery of the office, the well-kept building, the courteous and magnetic personality of the principal, the newspaper, athletic teams, or brass band that have resulted from his encouragement. Such things are obvious and, we must add, highly desirable; consequently they are often primarily sought. But to the

large vision they are subordinate to the real objectives of the school. It requires a strong man to make a tradition that expects him to devote the major part of his strength and activities to those intangible and remote ends which those not professionally minded are slow to appreciate.

A third reason, one most frequently stated, for the neglect of supervision is the lack of time. It is undoubtedly true that upon the principal devolves many responsibilities. Whether subordinate, as most of them are, or not, they must be accepted; details must be attended to or the more important work of the school can not go on. If one studies the diaries of principals—such as those presented by Professor Davis, for example—he will be amazed at the number and at the variety of things that they are called on to do. At the same time he will be astonished that the most highly paid member of the staff, the educational leader of the school, should permit himself to be loaded down with details of the kind that we find recorded. No leader of industry could permit it and long retain his position. It is only because secondary education has not yet found itself that any principal permits it or that the public allows him to do so.

There are ways of finding time; indeed, men always find time for what they consider of most importance. What some of those ways are it is impossible here even to suggest; it is sufficient to say that good principals, even in small schools, have found or made time for the improvement of instruction. The first step is a conviction that this is the prime purpose of the school, the purpose to which everything else must be subordinated. Possessing this the man who should be principal will find the time to contribute to its accomplishment.

This suggests the fourth and perhaps the most cogent reason why there has not been more supervision and that is lack of ability. It is a fact that every man tends to do those things that he can do best. If routine detail is what he is most successful in doing, it is easy for him to convince himself that routine detail is the most important thing in the school for him to do. If he is conscious not only of a conviction that education is the most important thing in the school but also of a power to forward that, he will find or make opportunities to devote himself to that task.

Let us not deceive ourselves as to the difficulty of supervision. It must be based on a philosophy that is clear, sound, adaptable, and

pragmatic. Those four adjectives, though thoroughly reasonable, make demands that it is difficult to meet. It is bootless to argue that the theorists of education are to blame for the indefiniteness. What really matters is that theorist and practitioner alike shall jointly or severally seek to clarify the fundamental notions that are necessary to give supervision a sound basis. Unless it has that it will be fragmentary, inconsistent, and relatively ineffective. The difficulty of clarifying our notions of what education is for and of what the special functions of the secondary school are should not, however, deter any professionally minded principal from making an attempt for himself. After he has done that he will be in a better position to appreciate and to evaluate statements that others propose.

The supervisor must not only have a clear philosophy, he must also know what the details of good teaching are. The specific purposes of each subject, good assignments, habits of study, the psychology of learning and of retaining, types of recitation, testing, application, and other such matters are all his concern. Doubtless he brings to the job some theoretical training in these matters, some experience in teaching, and common-sense; and fortunately, as previously stated, he constantly adds to his capital by observing good teachers at work. If he is able to improve the work of the school even a small per cent in one of these details each month, the cumulative effect is tremendous.

In addition effective supervision demands tact, the ability to impart suggestions so skilfully adapted to each individual that they are welcomed, accepted, and enthusiastically used. Although some of the technique of tact can be taught, most of it doubtless must be learned by experience. It would be futile to discuss the matter in this brief paper.

Supervision is direct and indirect. The principal observes recitations and holds personal conferences with the teachers primarily to promote the good and promising and only secondarily to remedy defects. Strengths drive out as well as compensate for weaknesses. Indirectly he works in large schools through heads of departments and other supervisors, all of whom he must coördinate and more or less direct. In every school the most important indirect means of supervision is the teachers' meeting. There the principal proposes his philosophy, clarifies the special functions of the school, leads discussions of the several techniques of teaching, and develops an esprit de

corps—all of which are not only necessary but also economical to present to the whole group in preparation for the individual conferences later. Nothing in his calendar of duties should so challenge the principal as preparation for the weekly professional teachers' meeting. He is a peripatetic training school and this is his class.

It is easy for a principal to accept supervision as his responsibility; it is difficult for him to accept it as the most important of his many obligations, to find for it time commensurate with its importance, and to work continuously and skilfully for the direction and improvement of the education in his school. He will organize his school, of course; and good organization will provide for every possible contingency that can be foreseen, making routine every detail that does not demand individual judgment and delegating authority as well as responsibility for some subordinate to take care of most of the others. Similarly he must administer his organization; but understanding that he is paid not for what he does but for what he gets others to do, he will take a leaf from the book of business and not permit himself to be distracted from his major obligation by attending to minor details. Through his organization he will administer his school in such a way that everything facilitates education, the objective for which the school was established and is supported. He will reserve for himself time to dream, to plan, to direct, to coördinate, encourage and improve those engaged to teach. These are essentials, and these are his responsibilities.

Revision of the High-School Curriculum was read by Associate Professor of Education, Henry Harap, Western Reserve University, Cleveland, Ohio.

REVISION OF THE HIGH-SCHOOL CURRICULUM

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Introductory.—It is my purpose to describe a typical process of curriculum revision and then to demonstrate that it is an excellent instrument of supervision. Your group represents many types of organizations—the village high school, the town high school, the small city high school, and the large city high school. Here I shall think of

the town or small city high school with a corps of about fifty teachers. However, the steps which I shall enumerate are applicable, with certain modifications, to all high schools.

I once asked a superintendent of a fairly large and prosperous town what he was doing with regard to curriculum revision. He apologized for his limited financial resources and personnel and explained that he was using certain generally accepted good courses of study of the more progressive larger cities. Now, this is certainly a safe procedure but it has several obvious limitations. The most popular course of study is not always the most reliable. A curriculum for a city one thousand miles west of the Mississippi is not always applicable to a small town on the Atlantic seaboard. Changing the curriculum of a school system is a growing, not a selecting, process.

The high school is lagging behind in curriculum revision. The best indices of activity available are the output of curriculum investigations and courses of study in the last ten years. The best data on curriculum investigations showed 157 for elementary schools, 101 for junior high schools, and 116 for senior high schools. At the same time the best data on courses of study showed 2,324 publications for elementary schools, 750 publications for junior high schools and 237 publications for senior high schools. There are very few in algebra and geometry. In French, Spanish, German, Latin, and Greek combined there is a total of nine studies. In the social studies there are four investigations. In the fine arts, commercial subjects, and music, there are barely any studies. Can it be that the new techniques of curriculum making threaten the existence of the conventional subjects? Does the law of self-preservation keep them from venturing into dangerous territory? Otherwise how does one explain the absence of exploration in these fields at a time when there is a vigorous nationwide campaign of curriculum reconstruction?

It is unfortunate that the Curriculum Commission of the Department of Superintendence was discontinued just as the high-school program of revision got under way. The elementary school was studied for two successive years and shows the effect of a persistent crusade. The junior high-school campaign lasted a year but in a sense it gathered strength from the attack on the senior high-school curriculum. Of the three, the senior high school was most solidly fortified to resist attack and should have had a longer siege.

The curriculum making movement is a healthy infant barely out of its swaddling clothes. The small school systems which have responded feebly to the lusty cries of the suckling, may have been avoiding the blunders of those who have been more solicitous but less cautious. Now is the time to undertake curriculum revision with considerable assurance of sound improvement. We may expect specially vigorous activity on the part of the high schools in the next few years to catch up with the progress made in the elementary schools. If it is pursued with the fearlessness and honesty that characterized the elementary movement, we should expect an astounding change in the character of secondary education.

Steps in Curriculum Revision.—If I were a superintendent of a small city interested in revision of the high-school curriculum, I should delegate the most capable person on the administrative staff to study the technique of curriculum making. I should commission him to bring in a practical plan of procedure which he would be prepared to direct. It is some of the important details of such a plan that I shall discuss briefly.

The first step in curriculum making is to organize the persons who are to have active part in the work. It will be necessary to have a small central committee under the director of curriculum revision which will determine certain general policies and coördinate the work of grades and departments. The actual labor will be performed by the working committees, small groups organized by subjects. It is advisable to enlist the services of all teachers who are in a position to make any contribution no matter how small. Frequently, it is possible to coördinate the practical labors of revision of university studies, thereby obtaining the informal assistance and stimulation of educational specialists.

The second step is the preparation of an introductory statement by the central committee for the guidance of all active curriculum workers. Here the central committee comes to a decision on important issues, such as the aim of education, the meaning of the curriculum, and so on. From time to time it should hold meetings of the whole teaching corps for the purpose of pointing out the issues which arise and the position which it purposes to take on them.

Supplied with a statement of guiding principles each subject committee is prepared to proceed with its special task. From this point

the burden is carried mainly by the subject committees. Just as there are issues in curriculum making in general, so there are issues within each subject. The third step therefore is to ferret out these issues, to discuss them in committees and to come to an agreement on the position which it intends to take.

The committees are then prepared to undertake the fourth step in the process, namely, the determination of the objectives, or specific goals of instruction. The director will probably have to be satisfied with the product of curriculum research conducted by the more favored individuals and organizations. If there are the persons and the time for a few minor original investigations such as, a study of home repair activities or physical defects, they should be encouraged for their direct and indirect value. In several fields there is easy access to the essential objectives, the product of ten years of work, to which the director of curriculum revision may turn with confidence. In no cases should the objectives found in existing sources be adopted verbatim. There is always opportunity for selection and change to conform to the local situation.

When the working committees have arrived at a final list of objectives arranged in instructional sequence they are ready for the fifth and most important step—the planning of units of work. At this point in the process the mass of teachers begins to be converted, for they witness the emergence of specific usable instructional procedures. In preparation for this step it is necessary for the committees and, if possible, the whole teaching staff, to consider the change that is taking place in the nature of school activity. If the organization follows the trend of the leaders in curriculum making, it will conclude that the new curriculum shall consist of activities or experiences. A unit of work therefore will probably be a complete experience which a class has in the attainment of any one objective or any group of related objectives. Following this short period of preparation the committee should study several outstanding curricula, noting their merits and their defects. A more intensive study of half a dozen specially selected units of work brings the committees a little closer to their specific problem. Each committee is now ready to agree on a dozen or more definite qualities which it intends to introduce into each unit of work. The statement of qualities serves as a guide to those who are working on units, and later, as a basis for criticism of those already prepared. The individual workers make most rapid

progress when they have several approved examples of good units before them for reference. Many teachers not necessarily limited to the working committees, are now at work composing units of work. As the units come in, are criticized, revised, tried out, rewritten, the actual course of study shows rapid development.

When the course of study is complete, the committee pauses to give attention to an important psychological principle—that a habit is not permanently fixed until it has been given a certain amount of practice. Therefore, as the sixth step it proceeds to select the elements in the course of study which are fundamental and organizes reviews at appropriate intervals. There is no law which may conveniently be followed in this matter. For the present, one needs to bear in mind that a habit is weakened unless it is exercised over a period of time. We should not be satisfied with courses of study which by neglect of providing for practice, result in less than fifty per cent efficiency in learning.

The seventh step is to set up tests at intervals to determine whether the specific objectives have been achieved. There are always a few indispensable facts or skills which should be learned permanently, just as one learns the multiplication table. It is a mastery of these essentials for which a student should be tested. It should be clear that the purpose of these tests is not to grade the pupil, although this may be done incidentally. Primarily these tests are part of the learning procedure. They are designed to discover whether the pupil has attained the goals of instruction. If a test reveals that he has not mastered an objective he should have additional practice or corrective exercises. Ideally, the pupil should not continue with a new unit until he has mastered what has gone before.

The procedure just described is a sketchy outline of the most important steps in the process of curriculum making. The details have been omitted for the sake of clearness. The competent director of curriculum revision will not let these details escape him.

Curriculum Revision a Means of Supervision.—It is obvious from what I have just said that the process of curriculum revision is equivalent to that of constructive supervision. Indeed I would hazard the opinion that most effective supervision occurs when the supervisor is directing an enterprise, a creative piece of work. A particularly imaginative child once represented a teacher by a fantastic

monster whose sharp claws reached out in every direction for innocent helpless children. If we could look into the minds of teachers, I think we would discover a straining to give expression to such picture of a supervisor. The effect of a productive enterprise such as curriculum revision is to take the claws out of supervision.

Ordinarily supervision is based on the assumption that the teacher must give up his ways of doing work for those of his critic. Curriculum revision invites the teacher to propose instructional procedures and thereby puts him in a receptive frame of mind for the acceptance of new modes of instruction. The Educational Council of the Ohio Educational Association in a recent study found that a group of selected teachers ranked curriculum work as the most helpful type of supervisory service. These teachers apparently recognized that supervision means occasional criticism while curriculum revision means a substantial improvement of teaching.

You will recall that actual labor of curriculum reconstruction is done largely by working or subject committees which are composed chiefly of classroom teachers. It was suggested that the services of all teachers be enlisted who are in a position to make any contribution no matter how small. It was pointed out that frequently curriculum making may be combined with university studies. It was recommended that the whole teaching corps should be called together from time to time to keep them in touch with important decisions which had been made. This should have the effect of giving a school system a unity of purpose and action.

The discovery of objectives is the business of working committees. It requires that the teacher evaluate his instruction and that he determine new goals of instruction. Again, it is important that the entire teaching staff be drawn into the work and that they be kept informed periodically of the results which develop. The planning of new units of work is almost entirely the responsibility of the teaching corps. The whole staff experiments with and develops new instructional procedures which eventually are to be incorporated in the new courses of study. They study the literature of present successful practice. They examine good courses of study from all parts of the country.

The whole system becomes an active educational enterprise. It feels a new stir of activity, and awakens as does the spring. Committees meet, studies are carried on and informal conferences are

held. Principals observe their teachers to discover the most capable persons for committees. Superintendents study the technique of curriculum revision to get an understanding of what is going on. Teachers begin to patronize the library. Specialists in nearby teacher training institutions are consulted. Teachers enroll in professional courses and institutes are motivated by serious business. Let me illustrate.

In a given county in the Middle West the problem of supervision was hard to solve due to the community's lack of support of a county program and the absence of machinery for county supervision. The county attacked the problem via curriculum revision. The personnel included the county superintendent; two advisers from the state university; an assistant county superintendent, a graduate student from the state university specially trained in curriculum revision; and thirteen local superintendents. The assistant county superintendent was the strategist in the organization. The local superintendents formed an advisory county cabinet, each being the head of a curriculum committee for one subject. Before the opening of schools a conference lasting five days was held in groups by subjects under the leadership of the local superintendents who had previously prepared themselves at the state university. The county superintendent and his assistant met the teachers of each local unit once a month for hearing reports of curriculum revision by the teachers. Of the 166 teachers, 100 had made such reports. The county superintendent and his assistant also gave individual help to teachers engaged in curriculum revision.

In an urban school of sixty teachers, the idea of curriculum revision was presented to them through meetings, conferences, and demonstrations. Considerable inertia had to be overcome before the program was formally undertaken. Teachers were induced to undertake new units of activity and their results were made known to the whole staff. A study was made of the interests and activities of the pupils. The principal and a committee of teachers determined the objectives on the basis of which a suggested list of activities was drawn up which the teachers proceeded to put into practice. They were urged to keep a record of the activities actually introduced into their daily work. These were accumulated and used as the basis of supervision and teachers' meetings. Gradually there emerged a new curriculum to meet the needs of the particular school and a disposi-

tion on the part of all those concerned toward continued study of their program.

Conclusion.—To recapitulate, it was my purpose to describe a typical method of curriculum construction and to demonstrate that it is a strategic instrument of supervision. I pointed out that a school system will profit most by an original program of revision. The high school has not kept pace with the advance in curriculum making made on the elementary and junior high-school level. The high school is in a particularly advantageous position to profit by the experience of the past ten years.

The process of curriculum revision includes: (1) Selecting and organizing of personnel of curriculum revision; (2) Preparing a statement of guiding principles in curriculum making; (3) Setting down the position of each committee on important issues in its field; (4) Determining the objectives in each field; (5) Composing units of work to accomplish these objectives; (6) Introducing reviews at regular intervals; (7) Introducing tests to determine whether the goals of instruction have been attained. If these steps are carried on with maximum participation on the part of the teachers, the process becomes an effective mechanism of supervision. Two illustrations were given to demonstrate that it is possible to organize curriculum revision so that it becomes a creative piece of work in which the whole teaching corps enters with enthusiasm and scholarly zeal.

Jesse H. Newlon, Director of Lincoln School, and Professor of Education, Teachers College, Columbia University, spoke briefly on the Work of the Commission on Articulation of the Department of Superintendence, and then read his paper entitled *Creative Supervision in High Schools*.

CREATIVE SUPERVISION IN HIGH SCHOOLS

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Supervision is due for an overhauling. The attack which has been made in the last fifteen years on the fundamental problems of curriculum and methods will force it.

The word supervision has a connotation unpleasant to many members of our profession. This is a regrettable situation. Every school should take measures to insure that the methods of teaching that obtain in its classrooms are kept abreast of the best thought and practice. But to many teachers supervision is obnoxious because, in practice at least, it assumes that the teacher must conform to methods and attain to standards set by the supervisor, even though the teacher may be in disagreement with the principles and methods involved. The curriculum revision movement has emphasized the highly professional character of the teacher's work. A reconsideration of the function and methods of supervision is inevitable.

Much of the difficulty arises no doubt from confusion as to the legitimate objectives of supervision and of the relation that should obtain between supervisor and teacher where both are professionally highly competent. What should be the leading objectives of supervision? Our answers would doubtless vary according to our philosophy of education, but some statement of objectives is essential to any discussion of the subject. Therefore I shall attempt to answer the question in broad terms to which we may expect the maximum assent, and yet with sufficient definiteness to provide a basis for a genuine consideration of some of the problems involved.

Broadly speaking, the purposes of supervision should be threefold: To insure that the daily work in the classroom and the daily functioning of the school come up to certain minimum standards of excellence; to create a condition that will be most conducive to the professional growth of every teacher; to encourage and stimulate the creative teacher by giving him freedom to experiment and the benefit of constructive criticism and adequate recognition. Such a statement emphasizes the professional character of the teacher's work and assumes that the superior teacher shall have freedom to work out his own problems and shall be invited to improve the procedures of the school through the development of new materials of instruction, or the invention of better methods of teaching or administration. Of the three objectives I would emphatically state that the last two are of most importance. Any system of supervision that strives to stimulate the teacher to growth and encourages initiative on his part has gone a long way toward insuring the best possible daily work in the classroom. Let us see how close we have come to the achievement of these objectives.

It has been said many times that supervision has been too inspectorial in character. The chief concern has been to see that the teacher carries out effectively the devices and methods of teaching that have been agreed upon as the best. This means, in nine cases out of ten, that the supervisor has determined what methods shall be used and has set them up for the teacher to follow. Supervision then becomes a process of training the teacher in the use of these methods and of inspection to see what results are obtained. Almost without exception the chief emphasis is placed on the teaching of predetermined subject matter and the mastery of certain skills. The results of such instruction are most easily ascertained by examinations and by the use of the new achievement tests that measure the mastery of subject matter and of skills. Many teachers are convinced of the inadequacy of such a narrow concept of teaching and believe that the objective tests, while invaluable for certain purposes, measure only a portion of the outcomes of teaching. They feel that their professional standing depends, after all, on the opinion of the supervisor whom they may consider less competent than themselves and whose judgments they consider to be subjective. Under such a regime the teacher thinks he is not accorded that freedom of opinion and action that should characterize the practice of a profession. Thus we are in the paradoxical situation that supervision, which apparently is a necessity, seems inconsistent with the professional dignity of the highly competent teacher. That this dilemma exists cannot be denied. How can the dilemma be resolved? Before attempting to answer that query let us look further into the present status of supervision in schools, keeping in mind at all times the broad statement of objectives which we have set up.

1. The dominant type of supervision is what has been styled close supervision. This type of supervision employs a number of techniques. The technique of measurement through examinations and objective tests has been mentioned. Teachers' meetings are given over primarily to the consideration of methods and devices. The teacher is frequently asked to visit other teachers, with the object of noting methods and devices. The supervisor visits teachers for the purpose of noting progress and making suggestions. The best supervisors of course strive to base their methods on sound educational theory and research, and encourage the teachers to contribute their thinking on the problems under discussion. But the emphasis

is generally placed on specific method and devices and assumes the validity of most of our present educational procedures. The supervisor is regarded as more or less of an authority and his is the final word as to method. The high school has suffered least from this kind of supervision only because less attention has been given to supervision in high schools than in elementary schools.

No one will question that close supervision is useful in a few situations. It accomplishes its best results with the poorly trained or the beginning teacher. It may be necessary for the assistance of the more experienced teacher who finds difficulty in mastering some new principle or technique of teaching. But such help is likely to be of little value if it is not generally desired by the teacher. If the teacher feels the need of technical advice the way is made easy. Supervision has placed undue emphasis on techniques and devices and not enough on a consideration of major problems and underlying principles. It allows too little room for teacher-thinking and initiative. It tends to create a situation inimical to the status of the teacher as a professional worker. This inspectorial type of close supervision with its emphasis on the techniques of drill on conventional subject matter is often worse than useless. It makes teacher growth an impossibility.

2. Confusion and misunderstanding obtains as to the need, functions and method of supervision. Teachers do not see the need chiefly because there has not been a frank facing of the whole matter by the profession. Executives hesitate to enter into a discussion of underlying problems of supervision with teachers. The teachers see that they have something less than a genuine professional status where they must always conform to the thinking of a supervisor, principal, supervisory staff, or even a committee composed of classroom teachers.

Certainly there is no general agreement to-day as to the function and methods of supervision. The same conflict of views is found here that obtains in respect of educational theory. One school of thought believes that successful teaching is made up of a large number of very specific techniques which can be learned. There is another school that denies that all teaching can be thus reduced to a series of definite techniques. According to this second school, the teacher is engaged in the highest type of professional service in which the principles of pedagogy must be applied to ever new and changing situa-

tions and problems and to the needs of unique individuals. It makes a definite place, but a relatively small place, for specific techniques. Close supervision would naturally follow the acceptance of the theories of teaching first described, but its range is very narrowly restricted if we accept the doctrines of the second school of thought. To this school extensive close supervision is anathema. This conflict in theory must somehow be resolved.

Some teachers are unfriendly to supervision because they are aware of their own deficiencies in professional preparation and their shortcomings as teachers. At the other extreme is found the teacher of outstanding ability who resents the deadening effect of the close supervision that so widely obtains. These able teachers would welcome another type of supervision. The great body of teachers probably do not think very deeply on the problem. They accept with great patience and strive to make the best of the situation in which they find themselves. They need a type of supervision that will awaken them to the true significance of their work and bring to them the joy that comes from the study of the most interesting of all professional problems, those of teaching.

3. The tendency to base supervisory programs on existing subject matter organization makes difficult the modification and improvement of the school's procedures. The supervision of so-called special subjects at once comes to mind. Wherever the supervisory staff extends beyond the superintendent and principals, supervisors of music, art, home economics, industrial arts, physical education, are found. Historically it is perfectly clear why this type of supervision was introduced. Teachers were not well prepared to teach the new subjects so the special supervisors were appointed and have now come to be accepted as an essential part of our system of supervision. In some places this practice has been extended by the appointment of supervisors of mathematics, science, English, social studies, and of other subjects. In high schools supervision on a subject-matter basis is effected through the departmental system.

Administrative considerations may seem to dictate supervision by subjects, but there are vital defects inherent in this plan which must be considered. This plan tends to crystallize the subject-matter organization that exists at the time the supervisory organization is set up. It puts the major emphasis on subject-matter and not on the education of the pupils. It creates a set of vested interests. Each

subject begins to vie for its place in the sun. Say what we will about the conditions that obtain in small high schools where teachers are compelled to teach subjects in which they are not well prepared, over-departmentalization is one of the curses of the large American secondary school. We have never succeeded in obtaining effective correlation of teaching and learning in the various subject-matter fields. Every program of curriculum revision sooner or later runs up against the clashing demands and interests of subjects. There is obvious need for a resynthesis of subject-matter. If the education of its pupils is made the chief objective of the school, it is evident that in many instances new units of work, new activities, and, in the secondary school, new courses, must be set up that will cut right across existing subjects. This process of reorganization and resynthesis is plainly evident in elementary schools where projects are being worked out, in colleges that are experimenting with the so-called orientation courses, and in the reorganization of the social studies and science teaching in secondary schools. All of us remember the opposition to general science that come from teachers of science interested primarily in their specialties.

There is some justification for the appointment of heads of departments in large secondary schools where large numbers of teachers are working in a given subject-matter field. But we ought to recognize the inherent weakness in this type of supervision. Its practice should be reduced to an absolute minimum. I believe a better plan of administration and supervision is thoroughly feasible.

To summarize briefly at this point, we find that supervision is suffering under three great handicaps. The first handicap is found in the widespread use of a type of close supervision that leaves to the teacher a minimum of opportunity for the display of initiative, that puts the chief emphasis on specific methods and devices, on the learning of skills and predetermined subject-matter, and therefore fails to see the importance of pupil growth in capacity for independent thinking, in variety of interests, in attitudes, appreciations and habits. Second, the practice of this close supervision has produced confusion in the minds of teachers and executives as to the need, function and methods of supervision. Finally, the tendency to organize supervision by subjects has a number of bad effects, the chief of which is that it puts undue emphasis on the learning of subject-matter to the exclusion of other values and creates a set of

vested interests that tend to oppose curricular changes that threaten to disturb the status of existing subjects of study.

In pointing out these defects I have no desire to leave the impression that I am damning all attempts at supervision to date. Here and there supervisory staffs are obtaining some good results in spite of these handicaps. Some supervisors are endeavoring to avoid the pitfalls which I have been describing. Not all supervision is based on the subjects of study. The horizontal as well as the vertical type is found in all school systems. This is true of the principalship, of the operation of an assistant superintendent, of supervisors of primary grades and of other supervisors whose functioning is not restricted to subject-matter fields. Much progress has been made in the analysis of the teaching art, in developing ways of assisting teachers to master the elementary principles of method and to grow in skill, and in an intelligent use of achievement tests and other objective studies and measures. But granting all this, I feel that my criticisms are still valid. Supervision has been too mechanical, has placed too much emphasis on techniques and on the learning of subject-matter, and too often has not recognized the claims to independence and freedom of action which the highly competent teacher should reasonably expect as a professional worker.

We now come to the question of how supervision can overcome these defects. How can supervision in high schools be made to achieve the broad objectives which we have stated? Obviously an adequate answer cannot be given here. Only through much experimentation and research can the solutions for many of these problems be found. But the guiding principles should be perfectly clear. It should be possible to outline procedures that give promise of making supervision a really creative force in the life of the school. It has been my privilege to see a few really gifted superintendents, principals, and supervisors in action. What I suggest will be based, in part at least, on what I have seen these able persons doing. I hope it will also be based on valid educational principles.

1. A program of supervision should recognize the professional status of the teacher. The acceptance of this principle demands that the immemorial practice of imposing supervisory opinions and fiat on teachers be abandoned. It assumes that the good teacher must be the judge of what is to be done and how in a given situation. This principle assumes that results are more important than the methods

by which they are obtained. It allows for differences of opinion among teachers and between teachers and supervisors. It calls for supervisors capable of competent thinking and leadership, for the teacher's practice will be influenced only if the ideas of the supervisor appeal to him as valid.

The application of this principle would call for a thoroughgoing attempt to arrive at some satisfactory agreement as to the needs, functions and methods of supervision. It is obvious that no final pronouncement can ever be had so there must be continuous consideration of these problems. In one school system this need has been met in part through a supervisory council consisting of teachers representing all divisions of the system and of supervisors, including principals and assistant superintendents. This body is a forum for the discussion of problems of supervision and teaching. It is in no sense administrative. It attempts to settle nothing. But any member of the council may raise any question about supervision. The discussions are extremely frank and have led to an increasingly better understanding of the place and methods of supervision on the part of both teachers and supervisors.

This principle also assumes that teachers jointly with the administrative and supervisory staff are responsible for the development of educational policies. On no other basis can the teacher have a truly professional status. The staff must be so organized under the leadership of the superintendent, or principal, in the case of a school, that teachers may actually participate. With this end in view classroom teachers were made chairmen of all curriculum committees in the Denver curriculum revision program. Little study has been given to this great problem of staff organization. Machinery must not become an end in itself. If there is a clear recognition and appreciation of the contribution which the teacher can make, matter may proceed very informally in schools. But in large city school systems the problem is far more difficult. When this principle is actually put into effect most school executives will be obliged to change in important respects their notions of their own functions.

2. The staff should be continually engaged in an organized study of the problems of the school. Most of the problems of education are still unsolved. This is true of the problems of curriculum and method, of the problems that center about educational and vocational guidance, about the life of the school, about the articulation of the

school with the home, the community and the other units of the school system, and innumerable other vital problems on the study of which the faculty should be constantly engaged.

I know of no better supervisory device than that of curriculum construction. A faculty that is working on curriculum problems must ultimately face every important issue in American education. The same may be said of other problems which I have mentioned. These problems can never be finally solved. All must be continuously studied and every educational staff should be organized for this purpose.

The function of the principal in such a situation will be that of leadership. His leadership will be determined by his capacity to think and to stimulate others to think rather than by the extent to which he can succeed in arbitrarily imposing his own ideas on the staff. This method of administration offers the most complex challenge and demands the highest administrative ability. Its methods are still largely to be developed. At the same time it provides the most favorable conditions for the functioning of special services such as those of a research department or curriculum department. Teachers who are enthusiastically working on their problems under conditions that permit initiative and independence of action are eager to have the assistance of the specialist. They are ready to coöperate heartily in the scientific study of their problems.

Where such a program of teacher participation obtains the major emphasis will be put on underlying principles, on the larger objectives, and the larger and more significant aspects of method rather than on the minutiae of techniques and devices. Techniques will not be overlooked but will be given their proper place, and will be understood by the teacher who uses them. The teacher will not be mastered by the techniques, but will be the master of them. The individual teacher will be allowed the widest possible latitude, but will be expected to give reasons for what he is doing. The supervisor will be for the most part a friendly helper, acknowledged as a specialist in problems of teaching. If he cannot measure up to this ideal the most favorable conditions for his painless removal have been set up. He will probably be keenly aware of his uselessness.

Where such policies operate, no system of close supervision will throw a pall over the schools. Close supervision will be of real assistance to the poorly trained teacher, to the new teacher, and to those

who tend to drop behind the profession. But the aim will be to reduce this type of supervision to the lowest minimum. As a matter of fact in a system where teachers and supervisor are working co-operatively and where the supervisor demonstrates his capacity for professional leadership it will be impossible for the supervisor to meet all the demands for help. Of course the administration of a school must assume the responsibility for the success or failure of teachers and must not hesitate to act where necessary. But with anything like a careful selection of adequately prepared teachers and careful direction in the probationary period close supervision can and should be largely eliminated.

3. It should be the policy to make supervision general in character and not to base it on subject-matter divisions. We should strive to avoid the creation of conditions that will make difficult change in content of courses or methods of teaching. For some purposes supervision on the basis of subjects may be necessary, but that remains to be demonstrated. This position does not deny an important place to specialists in subject-matter fields in connection with the research and curriculum departments of large school systems. But their function would not be supervisory. If subject supervisors and heads of departments are to be appointed the groupings should be as large and as flexible as possible. The appointments of such supervisors should be made chiefly on the basis of their interest in the broader problems of education rather than on the basis of their proficiency in the methodology of any subject.

4. Staff meetings should be devoted to the study and discussion of fundamental professional problems. There is no better measure of the professional ability of a school executive than the staff meetings which he conducts. Where the mere time-marking executive presides these meetings will be given over largely to matters of routine, announcements, reports on various administrative procedures, and the consideration of problems personal or purely administrative. I remember one faculty in a fair sized high school that gave over several meetings each year to the discussion of the marks of individual pupils, and devoted much time to the discussion of problems of discipline. Obviously a little time may on occasion be legitimately given to routine, but not much. There are other and far better ways to handle such matters than in staff meetings. These meetings afford the golden opportunity to bring every teacher into the study of the

most vital principles and problems of education. Generally speaking the broader aspects of education should be studied here, but the program should insure that the staff will be kept abreast of the latest pertinent research in psychology, in method, in the curriculum, and in other important fields, and with the best thought and practice here and abroad. The staff meeting should be the great power station of the school.

5. Finally let me make a plea for what I call casual supervision. The principal in his daily contacts has many opportunities to discuss interesting professional problems in a casual way with teachers. Often the ice can best be broken in this way for the teacher who is shy or timid. Gradually a spirit of confidence and good will is created. The principal who is a student of education, reading widely, alert to new problems and impending changes, will make use of every opportunity to challenge the thinking of teachers. Sometimes a question rightly placed will set a teacher to thinking or the suggestion that a book or an article, professional or otherwise, is worth reading, may be the stimulus that will start some teacher on a real professional adventure. I am not advocating the talking of shop at any cost, but rather the utilization of daily contacts for the creation of that spirit and morale and that intellectual atmosphere which is essential to the effective functioning of any school. Principals who can do this sort of thing are getting a lot of fun out of life. They have discovered that supervision is the most exhilarating and joyous experience in administration. But, alas, due to our narrow concept of supervision and to its bad odor and unpopularity too few high-school principals are getting these thrills. Worse, too few are providing the leadership of which they are capable.

A program of supervision conceived and carried out along the lines I have indicated becomes a real creative force in the school. It recognizes the professional status of the teacher and admits him to a genuine participation in the determination of policies. It encourages teacher initiative and gives quick and generous recognition to outstanding service. It gladly recognizes that the supervisors are not the repositories of all wisdom, but that the outstanding teacher may be and most likely will be the master in his field, in his school or in the entire system. I could recite to you the rest of the day examples of unique and valuable contributions made by teachers. In recent years in a few communities classroom teachers through curriculum

committee work have in a number of instances led schools to strike out in new directions. All of you can think of teachers who possess to a high degree that rare quality that we call creative ability. We are in sad need of a type of administration that will capitalize the abilities of such teachers and produce more of them by opening opportunities for them to contribute to the thinking that eventuates in educational policies.

And finally let me suggest that we need a new word for that function of administration which we now call supervision. Perhaps some member of this department has the creative ability to suggest that word.

Charles H. Judd, Director of the School of Education of the University of Chicago read his paper on *Examples of Scientific Procedure in Supervision*.

EXAMPLES OF SCIENTIFIC PROCEDURE IN SUPERVISION

CHARLES H. JUDD,

DIRECTOR OF THE SCHOOL OF EDUCATION, UNIVERSITY OF CHICAGO

High-school principals have begun to supervise their own activities. There is no clearer evidence than this that the day of mere arbitrary direction of school procedures is past. There was a time when high-school principals were satisfied to stay in their offices or to visit classes as seemed to them individually most expedient. To-day there is a new force at work. The principal of a school has become aware of the fact that he is isolated and that possibly he is not infallible in his judgments. He writes to principals in other cities and asks them how much time they spend visiting classes, and how many conferences they have with teachers. He tabulates the answers and compares himself with other members of the profession. A series of tabulations on these general topics which has recently come into my hands varies in an interesting way from the usual questionnaire procedure of consulting one's colleagues. A principal in one of the Michigan towns has induced his fellow-principals to ask representative teachers in their schools how often the principal visited their classes for purposes of supervision, how much time the principal spent on the average in making these supervisory visits, how useful

the principal's comments were, and so on. It is probable that Michigan is at least no less active in supervision than other parts of the country, but the results of the inquiry just described will certainly cause some careful thinking on the part of high-school principals who read the report. One impressive detail may be reported here. In answer to the question: "Will you answer frankly—did the supervision which you received last year make you a better teacher?" Fifty-three teachers said "Yes," and fifty-one said "No."

There are other lines of comparative inquiry in which high-school principals are engaged. They are asking one another whether it is better to have heads of departments or to attempt to do all of the supervising directly. They are comparing experiences with large and small classes; they are discussing the results of classification of pupils according to ability. I am not at the moment concerned with the fact that principals are becoming increasingly scientific in their study of pupils and teachers; I am attempting to emphasize the fact that principals are examining their own successes and failures. It is, I believe, altogether wholesome and highly desirable that high-school principals establish in the minds of teachers and pupils the idea that comparative studies are quite as applicable to the work of the principal as to the work of the teacher and of the pupil. If there are standards of achievement in the teaching and learning of algebra, there are certainly standards of achievement in the management of a school.

Any principal who pretends to be scientific and confines his attention to teachers and pupils is still in the primary stages of mastery of the science of education. The science of education ought to make the administrator critical of his own methods. The supervisor who can guide his own conduct by standards derived from careful, impersonal, impartial examination of results is the truly scientific supervisor.

Perhaps I can make the point more cogently by using a negative illustration. There are some principals who unload on teachers responsibility for results of class instruction. There is a high-school principal who, to my knowledge tells his teachers that a failure of more than five per cent of the pupils in any given class is a reflection on the ability of the teacher. I am disposed to think there is some validity in a general way in this principal's pronouncement, but certainly an individual teacher has a right to point out that the pupils in his class came to him, not of his choice, but as the result of a series

of promotions for which the school system as a whole is responsible. The individual teacher has a right to point out the fact that the textbook which he uses is chosen by the department of which he is a member rather than by himself, or even worse, that the textbook is chosen by somebody so remote from his class and school that the chances are at least even that the book is not suited to his class. The individual teacher can properly call attention to the fact that the policy of the school with regard to the number of courses which a pupil is allowed to elect, with regard to the amount of home study expected, with regard to extra-curriculum activities are all factors of the first importance in contributing to the success or unsuccess of his teaching. In short, no individual teacher is responsible for the success of the pupils in his class. The school is a cooperative enterprise and the principal is more powerful in determining the outcome of the Latin class or the class in algebra than he has been accustomed to recognize. If supervision is to be truly scientific, it must recognize the justice of distributing responsibility.

Let me refer in detail to the example of extra-curriculum activities which was mentioned a moment ago. A recent study made in one of the high schools near Chicago shows that the boys in one of the groups which is chiefly engaged in shopwork are far less likely to be found in the social clubs than are the boys in other groups. The explanation given of this fact is that the shop boys do not regard their clothes as suited to social occasions. It is perfectly evident that the shop boys ought to be in some of the social clubs. They, more than any of the other boys, need the training provided by these clubs. The mere recording of the comparative numbers of participants in social clubs brings out a defect in the scheme of supervising extra-curriculum activities. Who is responsible for the defect? Certainly the head of the school will have to recognize that here is a factor of school life which has indirect relations to all of the activities of the special group. The principal if he is keen will see the bearing of this fact on the democratic attitude of the whole pupil population.

We may pause at this point in the discussion to make two comments regarding scientific method. The first remark relates to so-called educational measurements. The struggle of the last two decades to demonstrate the possibility of measuring educational products has left so vivid an impression on the minds of school people that there are some who believe themselves to have satisfied the demands of

science when they have compiled a table. There are not a few persons who think of quantitative statements of any kind as the final goal of the science of education. It will be evident, I think, to anyone who is not overwhelmed by figures that exact measurements are in reality useful only when they make possible fruitful comparisons. For example, it throws very little light on a pupil's achievements to say that he solved five problems in algebra in ten minutes. We have an estimate of the real character of the pupil's performance only when we know that the average of the class to which this pupil belongs is three problems solved in ten minutes. Exact measurement is the means of securing a basis of comparison. Scientific evaluation must go further than merely to measure.

In the hope of emphasizing the fact that scientific supervision is something more than the compilation of exact measurements, I have avoided thus far in this paper the selection of the ordinary types of testing which have become common in schools. There is a great deal of testing which stops before it becomes truly scientific. To be truly scientific, the results of tests must be put into their proper setting. If a pupil's unsuccess in his studies is due to an excess of extra-curriculum activity, the discovery of the cause of the pupil's difficulty is quite as important as is the exact quantitative description of the extent of his failure. High-school principals should measure wherever they can, but they should also compare, and analyze, and trace down causes. Principals will become scientific only when they find valid explanations as well as facts.

The second comment which I wish to interject is that educational science will never accomplish its purpose so long as it merely studies present practices. Here again many people have fallen into a misconception which is perhaps natural but seriously limiting. There are a great many practices exhibited in the schools of America. Among these many practices there are some which are extreme and some which are average. If a comparison is instituted, the extreme practices will be brought vividly to attention. For example, if the Michigan principals who were mentioned a few minutes ago visit their teachers, as they are reported to do, on the average 2.1 times in a year, that principal who is extremely industrious and visits his teachers five times each year will readily be recognized as a supervisor having unusual habits. It would be overhasty, however, to conclude without further analysis of the situation that the principal who visits teachers

five times a year is better or worse than his fellows. If the five-time visitations are of a kind which irritate teachers, perhaps the large number represents a compounding of inefficiency. On the other hand, if the 2.1 visitations which represent average practice is relied on as a guide, it may be that the five-time principal may be unduly discouraged in well-doing.

Average practice has come to be recognized as having a kind of superior sanction because it is assumed that in the long run experience will gradually reveal the most expedient forms of behavior. The fact is that very often average practice represents not a highly evolved wisdom but rather a highly calloused complacency. Practice must be critically examined. It must be studied with regard to its consequences and very often the largest possible service which scientific analysis can render is to overturn and wholly revise average practice.

With these digressions I return to concrete cases. I remember a high school in a large system which I had the opportunity to inspect during a survey. The principal was a woman who had earlier been a teacher of English in that school. As a teacher, the principal had become somewhat acquainted with the meager home surroundings of her pupils. When the principalship was vacant she naturally succeeded to the position because of her knowledge of the needs of the pupils. She organized the school in a way which added to intellectual opportunities many social opportunities. The building was kept open on certain evenings to supply pupils with a place to study and on certain evenings social events were organized for the purpose of providing through the school what the homes did not furnish.

This illustration seems to me to show that supervision of pupils is something which goes far beyond the testing of intellectual results. I know of nothing more worthy of the name "scientific" than a careful investigation of the environment from which pupils come. If such an investigation is made on a large scale as it was when Counts tabulated the occupations of parents and determined the degrees of retention of pupils from homes of various economic types, the investigation is recognized as a scientific achievement of high order. Some principals appear to be discouraged rather than helped by the extended scientific inquiries made by special students of educational sociology. The impression gets abroad that an investigation must be very elaborate in order to be scientific. It is the purpose of this paper to stimulate principals to realize that an intensive study of a limited body of pupils

is scientific if it is critically carried on and if it is thorough enough to be made a guide to practice. It is one of the characteristics of science that it aims to make experience as complete as possible. The great trouble with school relations is that they are too often managed without anything like complete understanding of pupils. Any study which will make a principal acquainted with the out-of-school lives of pupils will contribute to better supervision.

We are led naturally from the discussion of sociological investigations of the whole community to the consideration of case studies which are undertaken for the purpose of diagnosing individual pupils and for the purpose of directing treatment of these cases.

I venture to draw on an analogy in order to give this part of my discussion an introduction which I hope will add to the plausibility of my plea for systematic case studies in the high school. There was a time when physicians merely treated patients at intervals when the patients were sick. Doctors of that day had little or no thought of their patients when these patients exhibited no violent symptoms of disease. To-day physicians keep elaborate records and encourage their patients to undergo periodic examinations in order that treatment may as far as possible anticipate violent symptoms. Medicine is increasingly scientific as a result of accumulated records, and society is protected by preventive medicine far more efficiently than it ever was by curative medicine which had no interest except the acute symptoms of a pathological attack.

I have encountered a few examples of schools which keep cumulative records of pupils. I have seen cumulative discipline records on which a principal notes what dealings the central office has with pupils. I note with interest a slowly growing tendency to make systematic personnel studies. The deplorable fact is that most schools have never risen to the level of intelligent case studies of the great body of pupils. School practice is at about the stage at which medicine was a generation ago. Schools deal with disorder when it becomes sufficiently boisterous to be intolerable. Schools deal with failures. Schools devote very little energy to a discovery of the premonitory symptoms that would show that disorder and failure are in the offing.

I judge that there will have to be a great deal of effort devoted to enlightening communities and to training school officers before systematic case studies of all pupils are regarded as essential to the

proper conduct of high schools. There is a center in the city of Toronto where teachers are being trained to coöperate with guiding experts in the systematic observation of pupils. As yet observation is limited for the most part to young pupils, but it is expected that the technique of this study will follow the maturing pupils until these techniques are equally applicable to older pupils. If teachers and experts can become keen in the observation of symptoms—favorable and unfavorable—which show the direction in which the pupils' development is trending, supervision of pupils will become a highly useful and exact science. At present we are ignorant for the most part of the meaning of many forms of behavior. Especially are we prone to take toward the usual forms of behavior the utterly unscientific attitude that overlooks these usual forms of behavior because they are commonplace.

I have referred thus far to devices which some principals employ in supervising themselves and I have mentioned some of the less common forms of scientific supervision of pupils. There is another sphere of supervision where the ancient techniques are disappearing and where there is great need of new and efficient techniques. I refer to the sphere for which the term "supervision" is most commonly used, namely, the sphere of teacher selection and management.

I was very much impressed by a letter recently sent out by the University of Minnesota. In the effort to find out what constitutes excellence in college teaching, a committee of that institution is asking the students who have been taught by certain selected highly successful college teachers to write a description which will show what made their teachers the successes which they were.

I know several schools in which the principals regularly correspond with alumni of two or three years standing in order to guide their own judgments regarding their teachers.

There are devices for comparing the characteristics and attainments of individual teachers with lists of standard characteristics and attainments which have been compiled after consultation with experienced supervisors. I shall not presume on the patience of a group such as this by discussing teacher-rating systems. As much as I believe in the study of teachers' traits, I am far more interested in discussing ways of making teachers efficient than I am in discussing rating cards. It has been my observation that the best way to make

teachers sympathetic with scientific methods of supervision and at the same time highly efficient in their own spheres is to induce them to do some careful experimenting themselves. I have known cases where a principal has used all the scientific methods of testing and grading and has utterly antagonized the members of the teaching staff. In fact, a principal is more likely to frighten teachers with tests than he is to help them if he does not accompany the administration of tests with training in the interpretation and application of results to practice.

Let me use the example of a case of discipline to show one way in which a principal may produce in a teacher an interest in scientific case-study. A teacher has had trouble with a refractory pupil and finally reaches the point where the only possible relief from the tension seems to be to send the pupil to the principal. The principal in such cases sometimes begins his examination of the pupil without reference to the teacher's earlier efforts to deal with the disorder. In general, it is much better for the principal to utilize the opportunity to train the teacher in methods of case-study. The principal has the right to assume that the teacher has arrived at some kind of an explanation of the difficulty. The principal has a right to assume further that the teacher, having arrived at an hypothesis as to the source of trouble, has made efforts to correct it. No disciplinary case should be disposed of by a principal until it has been studied carefully by the teacher and treated in at least two or three ways by the classroom teacher. If teachers learn that the principal expects them to study their pupils, there will be cultivated in the school a very wholesome attitude because teachers will come to understand that disorder is a pathological condition to be studied and dealt with. Some unscientific teachers look on disorder as a personal affront. They regard punishment as vengeance. They send pupils to the principal in order to subject them to stronger types of punishment than they are competent to administer. If this primitive attitude toward disciplinary cases can be transformed into an attitude of intelligent examination, much advantage will be gained. Teachers will be relieved of much emotional excitement and pupils will be aided in their development as they can never be under methods of vengeful punishment.

The example of discipline will serve to make clear what was said a few moments ago about all kinds of incoördination in the school. Years ago it was quite the custom when a pupil failed in his mathe-

matics or English or science for the teacher to explain the situation by saying that the pupil was stupid. Scientific studies have made it clear that stupidity is of several different varieties. There is a type of stupidity which results from anemia. There is a type of stupidity which results from emotional instability. There is a type of stupidity which results from lack of proper antecedent preparation. As soon as the members of a high-school staff become intelligent about stupidity, they will begin to understand that the treatments of the various varieties of stupidity are different. They will begin to discriminate and to apply specific remedies to specific cases.

Growth of insight such as is suggested in the foregoing discussion has a number of advantages. Teachers will no longer feel that every case of failure is an annoyance. They will see that the discovery and application of remedial measures is an important problem of teaching. They will get an entirely new view of the testing movement. They will realize that a well-constructed test is an instrument of diagnosis. They will think of a test as a useful and advantageous addition to their methods of ordinary observation of pupils.

The plea which it has been the purpose of this paper to present can be summed up in the single statement that true scientific supervision consists in those practices which will convert the school into a laboratory of human engineering. The word "supervision" implies that from some source or other there is to be derived a broader view than that which a single individual secures through his personal experience. The first interpretation of the demand for a broader vision led school systems to set aside the most mature teacher as the guide of those who were less experienced. The school principal of a generation ago supervised others by giving them the benefit of his more extended contacts with educational problems.

As progress was achieved in educational diagnosis, school officers had put into their hands new and exact instruments of measurement and comparison. The broader view implied in the word "supervision" came to include vastly more than is included in the accidental experiences of a head teacher. The head teacher himself is to-day supervised by a science of education. There is no better definition of that science than the definition which is found in the word "supervision" itself. Wherever schools study their problems and attempt to view these problems from many points of view, there is generated the broad experience that makes for intelligent scientific understanding.

This paper has not attempted to enumerate all the devices that are now available for purposes of scientific guidance of practice in high schools. It has been the purpose to select a few examples which may serve to indicate to the principal himself that he is under scrutiny. Supervision is not an arbitrary exercise of authority. It is not the prerogative of an individual appointed to dominate others. True supervision depends on a comprehensive understanding. In short, and finally, we may say that it is a form of tautology to speak of scientific supervision because supervision in its most complete form is nothing more nor less than the effort to bring to the solution of school problems all the experience that scientific studies can accumulate and formulate into guiding principles.

William C. Reavis, Associate Professor of Education of the University of Chicago, reported for the National Committee of Research in Secondary Education.

The President called for nominations in harmony with Article V. Section 1 of the constitution. The nominations from the floor were:

- (1) New England: John A. Avery, F. M. Hodge, J. J. Butler;
- (2) Middle Atlantic States: John G. Hulton, C. H. Threlkeld, M. Smith Thomas;
- (3) South: Dan H. Eikenberry, S. B. Hall, O. W. Hyatt;
- (4) East North Central: F. J. DuFrain, Russell L. Guin, W. O. Nilsen;
- (5) Western: Otto F. Dubach, Willard N. Van Slyck, Merle Prunty;
- (6) Far West: Merton E. Hill, D. H. Halloway, L. W. Nielsen.

The result of the balloting was as follows: Avery, Butler, DuFrain, Eikenberry, Guin, Hill, Nielsen, Threlkeld, and Prunty.

THE WORK OF THE COMMISSION ON THE
ARTICULATION OF THE UNITS OF THE
AMERICAN SCHOOL SYSTEM

JESSE H. NEWLON,

PROFESSOR OF EDUCATION AND DIRECTOR OF THE LINCOLN SCHOOL
OF TEACHERS COLLEGE

I wish to speak briefly to you concerning the work of the Commission on the Articulation of the Units of the American School System, and particularly of the work of the Committee on Secondary education of that commission, of which I happen to be chairman.

The Commission on Articulation was in part an outgrowth of the work of the Commission on the curriculum. This commission became keenly conscious of the inarticulations that exist in the American schools. These inarticulations are most acute, of course, between the high school and the college. That is the sore spot. But the inarticulations that exist at that point are by no means the only ones, as the commission has found.

The appointment of the commission was in part in response to a situation that has been developing in American secondary education for fifty years. The enrollment in our high schools of millions of youth not destined for college has created innumerable problems of which the members of this department are indeed well aware. The high school is no longer the selective institution it was in another generation. The college preparatory function, if at all legitimate, is only one of its functions. As a matter of fact, we are not very clear in regard to the special functions of secondary education.

The secondary school occupies a middle position in our scheme of education. It must be articulated not only with the higher institutions of learning but with the elementary school which precedes it, and, just as important, with the society which it serves. A large majority of the youth who attend high school do not enter college at all, but go directly from the high school into the vocations of life.

The problems of articulation in secondary education have been increased by the fact that the secondary school itself is in process of transition. The introduction of the junior college, the experimentation that is going on with the 6-3-3 plan, with six-year secondary

schools, with the 6-4-4 plan, and with almost every other conceivable combination of grades into units, is indicative of this situation. More important, all kinds of questions are being raised about our curriculum practices, and these administrative rearrangements are only symptoms of a great unrest growing out of a conviction that the program of education provided in our high schools is not attuned to the needs of individuals or to the needs of American life.

What is an articulated or integrated system of education? Integration, it seems to me, assumes certain fundamental principles. An integrated system of schools would provide a continuous educational program for every individual from the kindergarten through the high school, or college, or professional school, as the case may be. Every unit in the system would afford that education that would best meet the needs of the individual at its level. The program of no unit of the school system would be dictated by the demands of any other unit. An integrated system of education assumes a program of educational guidance that would attempt to understand the capacities, the interests, the needs, and the future plans of every individual to an extent that would far transcend anything that we are able to do in the way of guidance at the present time. These principles are basic. Do you think that our schools at any level are measuring up to them?

The Committee on Secondary Education of the Articulation Commission is engaged in the study of a number of these problems. In preparation for the current yearbook, we attempted to discover some of the most important inarticulations that exist at the present time. The report of this inquiry into conditions in twenty-two cities is contained in the yearbook, and I again call it to your attention. You will find in the yearbook invaluable statistical data relative to the number and character of secondary schools in the United States, a study of the problems of articulation in the rural districts of California, a preliminary study of the work of accrediting agencies, a special study of the problems of the small high school, reports of certain experiments with fundamental curriculum reorganizations, such as those at the University High School of the University of Chicago, and at Pasadena, California, summaries of research studies, and much other valuable information. I would especially call your attention to the statements of issues and functions which were prepared for this report by Dr. Thomas H. Briggs, which raise fundamental questions as to the functions and problems of the secondary school. A considera-

tion of functions is basic to an intelligent reconstruction, and the obvious fact that the secondary school is undergoing some kind of a transition makes the question of functions all the more important.

We have had hearty coöperation from a number of your members in the work of the commission. Your president attended our meetings this year and made an invaluable contribution. I hope that arrangements may be made whereby this coöperation may be continued.

More important, I am making bold to urge that your department undertake a study of this very problem of articulation during the next two years. The Commission on Articulation will prepare its final yearbook in 1931. This means that the commission will continue its labors during the next two years. Without doubt, the secondary school presents one of the most difficult problems which this commission is attacking. I bespeak your interest and coöperation, and, in turn, should you desire to undertake a study of this problem, let me assure you of the hearty coöperation of our committee.

In the past the thinking for the high school has been done entirely too much in college circles. In the future the course of secondary education should be determined by those who work in that field. This body of principals should be, and I believe will become, the most powerful influence in American secondary education. At this transition time when secondary education is being made over this department faces its greatest opportunity. It is unlikely that a century will bring forth another such opportunity to affect educational practice.

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REPORT OF THE NATIONAL COMMITTEE ON
RESEARCH IN SECONDARY EDUCATION

to the

DEPARTMENT OF SECONDARY-SCHOOL PRINCIPALS

The National Committee of Research in Secondary Education desires to submit the following report of its activities during the past year.

The purpose of the Committee as set forth in former reports is to serve as a clearing house of information and results pertaining to research in secondary education. The Committee, through its personnel both collectively and as individuals, is constantly seeking ways and means of making available the findings of completed research for those engaged in secondary education.

The last five years have witnessed a remarkable development of interest in research on the part of students and workers engaged in the field of secondary education. Data collected by Dr. Walter Monroe from colleges and universities of the United States which require a research investigation in connection with the granting of advanced degrees in Education show that during the two-year period 1925-27, 188 per cent more degrees in secondary education were conferred than during the preceding two-year period, 1923-25. In the earlier period, 13 research studies were accepted in secondary education for the degree of Doctor of Philosophy and 100 for the degree of Master of Arts; in the latter period, 22 doctors' dissertations and 313 masters' theses were accepted. A partial report for the past year, 1927-28, indicates a very great gain in research studies in the field of secondary education over the preceding four years, over 560 masters' investigations alone being contributed.

One of the obstacles to the utilization of the findings of research workers is the fact that many of the studies are filed in typewritten form in libraries of colleges and universities and are not given general publication. With the profession constantly demanding scientific evidence as a basis of school procedures, ways and means should be developed of providing for the general circulation of the research findings. In this connection, the Committee has been glad to endorse the publication of abstracts of unpublished research studies, such as Bulle-

tin No. 24 recently published by the Department of Secondary-School Principals.

Two investigations sponsored by the Committee were published as bulletins of the Bureau of Education during the past year:

Ferriss, E. N. and others. *The Rural Junior High School*, Bulletin No. 28, 1928.

Roemer, Joseph, *Secondary Schools of the Southern Association*, Bulletin No. 16, 1928.

Other studies sponsored by the Committee are:

Baer, Joseph A., *Men Teachers in the Public Schools of the United States*. To be published in May, 1929, by Ohio State University. The study was directed by E. J. Ashbaugh.

Proctor, Wm. A. and Brown, E. J., *The Methods of Admission and Matriculation Requirements in 331 Colleges and Universities*. Published as a section of the Seventh Yearbook of the Department of Superintendence.

The following articles sponsored by the National Committee on Research have appeared in *SCHOOL LIFE* during the year:

Windes, E. E. *Unification of secondary education, the outstanding need*. March, 1928.

Grizzell, E. D. *A comparison of standards for secondary schools of regional associations*. April, 1928.

Jessen, Carl A. *The National committee reports progress*. May, 1928.

Bristow, William H. *The junior high school a factor in the rural school problem*. May, 1928.

Jones, Arthur J. *Coöperative study of English and American secondary schools*. June, 1928.

Edmonson, J. B. *Colleges are trying to be of greater help to high schools*. September, 1928.

Ferriss, Emery N. *Building a program of studies for the junior high school*. September, 1928.

Terry, Paul W. Value of supervision of high-school student organizations. October, 1928.

Eikenberry, D. H. Professional requirements for principals of high schools. November, 1928.

Powers, J. Orin. Is the junior high school realizing its declared objectives? December, 1928.

Schorling, Raleigh. Definition of secondary education and its functions. December, 1928.

Koos, Leonard V. Progress and problems of secondary education in California. January, 1929.

Crowley, Francis M. Rapid development of Catholic high schools in past decade. February, 1929.

Several other studies are being carried on by different members of the Committee which are not yet ready to report. Among these studies is an investigation by Dr. William A. Wetzel of what high schools are doing to adjust pupils of different ability levels to curriculums which can be successfully carried.

The committee believes that Dr. Wetzel's study merits the whole-hearted coöperation of the Department of Secondary-School Principals and that its members should give assistance to him to the extent of furnishing data and accounts of local practices.

Respectively submitted,

W. C. REAVIS,

For the Committee

SECOND SESSION

The second session of the Department met in the Cameo Ballroom of Hotel Winton at 9:15 a.m., Tuesday, February 26, 1929.

Principal Merle Prunty of Central High School, Tulsa, Oklahoma, presented the plan of a Junior National Honor Society. Chapters of this organization may be set up in junior or senior high schools that have any of the grades seven to ten inclusive. This plan has the unanimous support of both the National Council of the National Honor Society of Secondary Schools and of the Executive Committee of the Department of Secondary-School Principals.

The report on the finances of the Department followed:

REPORT OF TREASURER

DEPARTMENT OF SECONDARY-SCHOOL PRINCIPALS of the NATIONAL EDUCATION ASSOCIATION

JANUARY 1, 1928 TO DECEMBER 31, 1928

PRESENTED AT CLEVELAND, FEB. 27, 1929

RECEIPTS

Balance in bank, December 31, 1927.....		\$ 310.51
Annual dues from members.....	\$ 4,614.00	
Sale of Bulletins.....	740.65	
Sale of Uniform Certificate Blanks.....	157.68	
Honor Society Fees.....	5,544.45	
Interest on bonds.....	720.00	11,776.78
Collected by N. E. A. (Washington, D. C.)...	600.00	\$12,087.29

EXPENDITURES

SECRETARY'S OFFICE

Clerical services.....	\$ 1,230.00
Postage	604.76
Printing	367.97
Refund of dues to members.....	25.60
	\$ 2,228.33

HONOR SOCIETY		
Charters	\$ 150.30	
Refund of charter fees.....	15.00	165.30
BULLETIN No. 19 (January, 1928)		
Printing	\$ 615.55	
Mailing	30.00	
Postage	14.38	659.93
BULLETIN No. 20 (Twelfth Yearbook)		
Printing	\$ 1,387.29	
Mailing	45.00	
Postage	30.43	1,462.72
BULLETIN No. 21 (April, 1928)		
Printing	\$ 232.50	
Mailing	25.00	
Postage	16.93	274.43
BULLETIN No. 22 (May, 1928)		
Printing	\$ 197.92	
Postage	10.50	208.42
BULLETIN No. 23 (October, 1928)		
Printing	\$ 153.60	
Mailing	30.00	
Postage	30.98	214.58
BULLETIN No. 16 (April, 1927)		
Payment (Balance due, \$200).....	\$ 50.00	50.00
CONVENTION IN BOSTON		
Programs	\$ 25.03	
Expenses of clerk.....	111.06	
Expenses of President (Francis L. Bacon)....	12.16	
Honorariums	125.21	
Expenses of speakers.....	40.00	
Luncheon, tickets, refunded.....	3.82	
Secretary, expenses.....	60.76	378.04
COMMITTEE ON VOCATIONAL GUIDANCE		
Expenses	\$ 18.74	18.74
CONSULTATIVE COMMITTEE		
Expenses in Boston.....	\$ 12.50	12.50
COMMITTEE ON STANDARD BLANKS		
Expenses	\$ 216.83	216.83

Expenses of William Wetzel to two meetings of Executive Committee of National Com- mittee on Research in Secondary Educa- tion in Washington.....			
	\$	22.22	
		19.35	41.57
SUMMER MEETINGS, MINNEAPOLIS			
Expenses of Secretary.....	\$	122.93	
Expenses of President.....		110.96	
Expenses of Speakers.....		35.00	268.89
BONDS			
5 First mortgage, real estate, 6%.....	\$	5,000.00	
Accrued interest.....		72.68	
Rental (one year) safety deposit vault box....		2.50	5,075.18
(Total Bonds on hand \$15,000.00)			\$11,275.46
			811.83
Balance in bank, December 31, 1928.....	\$	528.87	
Cash on hand, December 31, 1928.....		282.96	
		811.83	
Cash in treasury at Washington, D. C.....		600.00	
		1,411.83	

Charles H. Judd then made the following report, as chairman of the Consultative Committee:

REPORT OF THE CONSULTATIVE COMMITTEE

The Consultative Committee set up the organization of investigations in secondary education for the year 1928-1929. This committee was appointed by the Department of Secondary-School Principals after the St. Louis meeting in 1927. The committee held a meeting in Boston at the time of the meeting of the Department of Superintendence in 1928. As a result of the deliberations of the committee a letter was sent to a number of high-school principals who were thought by members of the committee to be in a position to cooperate. The letter contained the following statement of the procedure recommended by the committee:

"A committee was created at the St. Louis meeting of the National Association of Secondary School Principals for the purpose of promoting cooperative investigations in the

field of secondary education. This committee held its first meeting in Boston at the time of the meeting of the Department of Secondary School Principals. Its membership and title are shown on the accompanying letter-head.

"The committee is undertaking the organization of a number of centers of discussion and investigation. The plan is to stimulate high-school principals in some forty or fifty parts of the country to organize themselves into clubs which will meet once a month during the school year and conduct coöperative inquiries into some of the problems which are of general interest to all high-school officers.

"The committee is sending this statement to about forty selected secondary school officers with the request that they organize local groups. The local groups are then asked to take up coöperative work on problems such as are outlined in the following paragraphs:

"I. *A Study of large and small classes.* Each principal should organize at least one large class and should visit it at least three times a month for a full session each time with a view to discovering the methods of work which are appropriate and successful in dealing with large classes. Tests of classes should be made and comparisons should be made between large and small classes. The members of a particular group should report their findings to one another for several months and should then formulate a general report based on their discussions.

"II. *High-School Records.* The Department of Secondary-School Principals has a committee working on uniform personnel blanks. The movement of unifying reports must be carried further in order to render possible valid comparisons of schools. The members of a particular group could profitably seek by comparison of their financial records, their pupil accounting plans and their faculty records to unify their procedures and their reports. The movement could then be extended to include several centers and finally a large number of schools.

"III. *Methods of Judging the Merits of Teachers.* The proper estimation of teachers can be accomplished only when

the best practices of many principals are systematically criticized after being applied to many cases. The procedure in this inquiry could be similar to the procedures described in earlier paragraphs.

"Other topics may be mentioned. There are problems of curriculum revision and of building construction. There are vital problems of financial administration.

"The committee suggests that the local groups take up one or more of the projects here outlined. It will be helpful to the committee to have the local groups report to the chairman the particular study which it will undertake. The committee will also welcome suggestions as to other matters which appeal to any group as significant. The committee will act as a center of communication and will send out bulletins from time to time to any local group which reports to the Chairman."

Thirty-two favorable responses were received. Local centers were promised in the following places: Seattle, Washington; Oakland, California; Ontario, California; Denver, Colorado; Sioux Falls, South Dakota; Lincoln, Nebraska; Omaha, Nebraska; Wichita, Kansas; Little Rock, Arkansas; Des Moines, Iowa; Minneapolis, Minnesota; Chicago, Illinois; Indianapolis, Indiana; Pontiac, Michigan; Detroit, Michigan; Youngstown, Ohio; Rochester, New York; Montclair, New Jersey; Portland, Maine; Lynn, Massachusetts; Cincinnati, Ohio; Council Bluffs, Iowa; Pittsburgh, Pennsylvania; Charlotte, North Carolina; Emmett, Idaho; Philadelphia, Pennsylvania; Dallas, Texas; Cleveland, Ohio; Cedar Rapids, Iowa; and Upper Darby, Pennsylvania.

Not all of these centers have been at work on the problems suggested by the committee. Some of the problems not on the committee's original list which have been reported as engaging the attention of local centers are the following:

"The Home Background of Freshmen who entered School in September, 1928."

"A Rating Scale for High-School Teachers."

"Supervision from the Point of View of Teachers."

"Duties of the Supervisor of a Secondary School."

"Pupil Preferences and Pupil Difficulties."

The most commonly accepted suggestion is that relating to the comparison of instruction in classes of different sizes. The committee has received numerous statements on this subject. The testimony is by no means conclusive in favor of either large or small classes.

At some of the centers comparisons have been made in an informal way without attempting to secure equivalent groups or otherwise refine the comparison. Some typical reports from such informal experiments are as follows:

"Statement by a history teacher relative to her impressions up to the present time on two classes of United States History, one having thirty students, the other having sixty students.

'Interest really depends upon the individual in both cases. Attention is not quite as good in the class of sixty as in the class of thirty. Discipline is a little harder with sixty than thirty but that may be due partly to the shape and arrangement of the room. The good students do just as well with sixty in the class as with thirty and the poor students, of course, not quite so well. The class of sixty seems a little too many for laboratory work. As far as the students preferring it, most of the students seem to prefer the small groups but that may be just a "snap" judgment. I think so far that I like one class just as well as the other. But, of course, there can not be as much individual work with the sixty as with thirty.'

"Statement by another history teacher relative to his impressions up to the present time on two classes of United States History, one having thirty students, the other having sixty students.

'The attitude of the students at first was against such large groups. It probably was due to a difficulty of adjustment. The chief cause of complaint was the lack of class discussion which, of course, was relatively impossible because of the size of the class. Interest and attention are

about the same in a class of sixty and thirty with the edge for the class of thirty. This again may be due to the novelty of the different size. Discipline is more difficult; it necessarily has to be stricter. There is a greater tendency toward mob feeling and less toward group solidarity. Map work is almost impossible in a class of sixty. Grades for the better students are almost the same. They have learned how to work with less direction. The weaker students manifest less accomplishment. They seem lost without the additional direction. In laboratory work a class of sixty seems a little too large. For lecture periods it is quite satisfactory, but greater attention to discipline means, of course, less attention to individual projects. Probably an average of forty-five in a class would be more satisfactory.' "

From another school comes the following statement:

"The average size of classes in this school is between twenty-five and thirty students. In September there were organized three classes of more than the usual number of students. There are thirty-nine students in the plane geometry class; thirty-six in Cæsar; and thirty-four in one section of beginning Latin.

"Certain facts regarding these classes appear to be emerging and they are as follows. The teachers who have these larger sections do not think that their technique of teaching differs greatly from that used in smaller sections but they do agree that there are actual differences in details. The attention of the teachers is spread over a larger number of pupils and the more vivid personal contacts are not so apparent as with smaller groups. Students have fewer opportunities to recite. The teacher, in order to maintain a close watch over student progress, is forced to give frequent tests.

"In the geometry class more detailed presentation of class lesson materials, demonstrations, and explanations by the teacher seem necessary. The teacher feels that this is a necessary part of the teaching procedure to effect the greatest economy of time. This is to avoid a waste of class time by indifferent students in problem solving and theorem proving at blackboards.

"The reactions of the plane geometry students to certain questions were secured. Questions: Do you like large classes? How many students do you think should be in an ideal class? Reasons for your answer.

"Twenty-five said that they did not care for large classes. Approximately thirty-one thought that the class should number twenty. In stating their preferences for smaller class groups, the following reasons are quoted from student answers:

'Because you can learn more. The teacher can get around to you oftener. There is a better chance for a high grade.'

'In a smaller class you can learn more and the teacher can pay more attention to each individual. In a small class you can concentrate.'

'I think that twenty-five is a good number for a class and that you can see and compare opinions of other members of the class more effectively.'

"In favoring a large class, a few students said as follows:

'In the small class you get called upon too much. There are not enough viewpoints expressed nor is there enough discussion.'

'The teacher can spend sufficient time with each pupil and still the class must not be so small that the burden of the class rests on a few.'

'Because we get the ideas of the others. They help us along more than a few students.'

"However, in the many responses to these questions, some students gave almost identically the same reasons for favoring the small class as others gave for favoring the large class. The Latin teacher summarized the students' reactions and his own as given below:

"STUDENTS' REACTIONS: 'When asked for an opinion, students have almost unanimously voted in favor of the smaller classes, claiming that they got more personal attention

from the teacher and more opportunities to recite. The few who voted in favor of the larger classes claim that the more students in a class the more ideas presented and that their chances for learning are greatly augmented. Most Latin students prefer a class of not more than twenty students.'

"TEACHER'S REACTIONS: 'Personally, I have found that as the number per class has increased, the number of failures in Latin has decreased. Greater numbers mean greater discipline problems. More interest must be injected into the class work and more testing must be done to obtain a fair estimate of student progress. The weak students are cared for in half-hour "opportunity classes" held after school and the attendance of which is entirely optional with the students in question. Most students who really need extra help avail themselves of the "opportunity classes." The bright students are given extra work with higher marks if they care to do the work. Many of the brighter ones avail themselves of this opportunity. I much prefer the larger classes to the extremely small ones where the lack of numbers makes the work extremely deadening.'

"PRINCIPAL'S REACTIONS: The principal considers that the larger classes are making satisfactory progress. The class work must be properly planned and sufficient numbers of tests given to give proper direction to the work. The class period is forty-two minutes. It now appears that greatest economy of effort will be realized by having 'opportunity classes' for the weaker and duller pupils. These sessions may be for short periods and only as often as the circumstances seem to warrant. Program and classroom limitations in this school make it impossible to compare work done in a large and small section in any particular subject. Our findings and conclusions should probably be conditioned by giving intelligence tests along with such standard achievement tests as may be applicable to the problem at hand. We should like an answer to the question as to whether students in larger sections do as well as previous training and abilities seem to warrant their doing.

More rigidly arranged conditions were organized in certain schools which report as follows:

"Two parallel classes were carried in Geometry I—one with forty-four pupils and one with twenty-two. It was very difficult to predict the geometrical ability of students, and any test given at the end of two weeks would have been unreliable. However, we did give each student an objective test in geometry and a test in arithmetic. We divided the class on the basis of the G. I. Q. For every two in the large class, we selected one for the small class, or at least a match for one of the two. Where two students had the same G. I. Q., we chose that student whose grades in the arithmetic and the geometry tests most nearly matched the grades of the student in the large class. Soon after the class was divided, the teacher reported that there was a decided difference in geometrical ability in the two groups—greatly in favor of the larger group.

"The following results were obtained:

	Small Class	Large Class
Total average in geometry.....	77.4	78.9
Objective test.....	69.9	68.5
Technique.....	87.3	80.5
Percentage of improvement on certain re-tests.....	77.	43.

Ability to attack new work
Tardiness, absence, non-valid excuses
Attention and interest
Large class shows advantage
No appreciable difference
Large class excelled

"The means for both objective tests and end-term marks were practically the same. The means for term-end marks showed a difference of 1.5 in favor of the large class, while the means of the objective tests alone show a difference of 1.4 in favor of the small class. The small class seemed to show decided superiority in the matter of getting their work in good shape. The means for the small class in technique exceeding that of the large group by 6.8.

"We attempted to find out whether an explanation 'went over' better in the small class. An 'original' was given to each class, graded, and then returned to the class with full explanations. Nothing was said of a re-examination, but in three days the same original was given again. This process with different

originals and applications of theorems was repeated three times, with the following results:

	Small Class	Large Class
Test I.....	18.8	50
Re-test	90.47	80.49
Test II.....	57	47
Re-test	76.3	70.7
Test III.....	66.4	58.7
Re-test	88.1	71.4

"An average gain of seventy-seven per cent in the small class and forty-three per cent in the large class.

"These results would indicate that a definite point explained 'gets over' better in a small group than in a large group. It does not show up in the means, but that may be because the large group did really excel in geometrical ability.

"No definite conclusions can be drawn from this one experiment as to the size of classes—possibly many such reports may show convincing evidence. We did find the experiment an incentive for improving teaching methods, and below is an outline of the devices used:

1. Systematize more fully classroom routine.
 - a. Make use of every time-saving device possible.
 - b. Definitely plan for entire time of each recitation.
2. Use every type of test available.
 - a. Shorter tests.
 - b. More frequent tests.
 - c. Objective tests.
3. Care file system for originals.
4. Several at board at once for quick work.
5. Use of assistants.
 - a. Students who have had the work are glad in many cases to give help for sake of review.
 - b. Leaders in class can be used.
6. No textbooks distributed for at least first quarter in geometry I. This seems a great advantage to beginners."

"In Technical High School we have a large and a small class in Spanish III, both taught by the same teacher. The

small class has sixteen students, and the large class has thirty-nine. Sixteen students in the small class had had mental tests. Sixteen other students, whose mental tests gave them practically the same intelligence quotients, formed the nucleus of the large class. To these were added twenty-three average students whose I. Q.'s were not taken into consideration.

"At the time this first report is being made, we are just completing the fourth week of the new semester; consequently, it is hardly possible for one to judge or make a just comparison. However, a few conclusions may be made:

"First, the students in both classes have unanimously voted in favor of the small class. To quote a few statements:

- (1) 'Because one is not so afraid to venture an answer even if he fears it is wrong.'
- (2) 'One is called upon more often in a small class, so learns more and gets a better grade.'
- (3) 'The atmosphere is less formal.' One boy expressed it, 'I now look forward to Spanish, even if it is the last period in the day, because I am learning a lot while having a good time.'

"As to actual results—one test has been given in both classes. In the small class there were no failures and more 'ones,' while in the large class there were many 'threes' and two failures. Considering the entire class, the good students did just as well as usual, but, on the other hand, the weak students received lower grades than they might have received in a small-group.

"In a modern language where the frequent use of the spoken language is so essential, it is very difficult to give sufficient time to such practice. The students in the second year are selfconscious when they try to speak the language, and so far it has been very difficult to try to get oral recitations from the students in the large class, while in the small one they are almost eager to try. The members of the small group are quick to note the mistakes of others and there is a fine spirit of competition.

"One thing must be taken into consideration, however. There are in the class of thirty-nine, twenty-two students who have just come from Junior High School, while in the small class there are only three. Although most of these pupils have brought with them good grades in Spanish, still the work of Senior High School is new to them, and the general atmosphere is quite different. In addition they are in a class with several students about to graduate and one who has already finished. All of this, added to a new teacher, has possibly not been conducive to good work. I notice, too, in the large class a tendency to shirk the day's assignment, probably in the hope that the teacher will not call upon certain members. In the small class shirking of responsibility, even among those known to be lazy, has been reduced to a minimum because every student recites many times during the period.

"No doubt a more adequate report can be given after a longer time has elapsed, and the relative results become more evident."

From one city in the East judgments of the principal and teachers were rendered without supporting evidence derived from experimentation. A part of the statement from this city is as follows:

"It may be interesting to you altho it probably will not be news, to know that the attitude in this section differs from the attitude that may be found in the Middle West. Opinion seems to favor what the Middle West would regard as small classes. Many schools in this vicinity regard a class of twenty-five as the ideal size,

"The matter of class size depends in part upon the length of the period, as well as whether the teacher individualizes the instruction of the pupils. It also depends to some extent upon the subject. In a school which is greatly influenced by the College Entrance Board requirements in subjects like foreign language, mathematics, oral expression, natural science, classes should not be over twenty-five in a period less than forty-five minutes in length. With a sixty-minute period a class of thirty might be handled just as well, assuming that the teacher individualizes the instruction.

"During the school year 1927-1928 forty-five per cent of our classes were twenty or less in number, and eighty-five per cent of our classes were twenty-five or less in number. Only two classes in the school exceeded thirty in size. This is a condition which I think helps us to meet the problems which confront us in this section of the country.

"The head of the Department of Mathematics comments as follows:

'Where the teacher's objective in Mathematics is to obtain a response from every pupil on each step in any development, the size of class is dependent upon the length of the period and the character of the individuals in the group. For a forty-five minute period and an average group our experience is that twenty to twenty-five represents a group of desirable size in geometry, and twenty-five to thirty in algebra. An unnecessarily small class would be fifteen to twenty, and a class that probably would force most teachers into undesirable compromises on method would be about twenty-five in geometry and thirty in algebra.'

"The head of the Department of English contributes the following:

'The ideal English class seems to run from eighteen to twenty-five members. In the English class the individual has the chance to find himself, to maintain his individuality, to enrich himself through the experience of others. This he does through the opportunities of expressing himself to a sympathetically critical audience, so that in a class of less than twenty-five the individual has more opportunities for expression, an informal atmosphere, making for ease. An audience that consists of this size seems to be a group of interested friends.'

It is evident that much more needs to be done before we can speak with any assurance on this important matter of size of classes. The testimony at hand is conflicting and often inadequately founded. In the meantime, it is equally evident that in some cases distinct advantages are secured by organizing large classes. The economies which are possible if large classes can be organized as substitutes

for the conventional small classes are so great that it is imperative that vigorous inquiry be carried on.

The committee believes that it can serve a useful purpose by continuing its work and it recommends that it be continued.

Another matter which it is proper for this committee to include in its report is the following:

Congress passed as a part of the current appropriations to the Bureau of Education the following:

For all expenses, including personal services in the District of Columbia and elsewhere, purchase and rental of equipment, purchase of supplies, traveling expenses, printing, and all other incidental expenses not included in the foregoing, to enable the Secretary of the Interior, through the Bureau of Education, at a total cost of not to exceed \$225,000, to make a study of the organization, administration, financing, and work of secondary schools and of their articulation with elementary and higher education, \$50,000: *Provided*, That specialists and experts for temporary service in this investigation may be employed at rates to be fixed by the Secretary of the Interior to correspond to those established by the Classification Act of 1923, as amended, and without reference to the Civil Service Act of January 16, 1883.

The plan of expenditure which is contemplated in this action is the use of \$50,000 during the year 1929-30, \$100,000 during the year 1930-31, and \$75,000 during the year 1931-32.

The initiative in recommending this appropriation was taken by the North Central Association of Colleges and Secondary Schools. The other regional accrediting associations, the American Council on Education, and the National Education Association at its Minneapolis meeting indorsed the request. John J. Tigert, commissioner of education, and Roy O. West, secretary of the Department of the Interior, were cordial in their support of the request for the appropriation. The committee of the North Central Association which was authorized to bring the matter to the attention of the federal authorities presented the request to the Education Committee of the house of representatives and later was granted conferences with General Herbert M. Lord, director of the Bureau of the Budget, and the Honorable L. C. Cramton, a member of the Committee on Appropriations of the House of Representatives. At every point the request was received with hospitable attention.

Commissioner Cooper enters on the duties of his office with this appropriation which supplies him with an opportunity to conduct an epoch-making study of secondary education. It is recommended that the Department of Secondary-School Principals communicate with the Commissioner through this committee and assure him of the willingness of the members of this Department to coöperate with him in every way possible, especially in the conduct of the inquiry for which provision has been made by the Congress.

Respectfully submitted,

FRANCIS L. BACON
WM. H. BRISTOW
JESSE B. DAVIS
WM. F. EWING
V. K. FROULA
CHARLES H. JUDD
(Chairman)

L. V. KOOS
A. B. MEREDITH
SAMUEL M. NORTH
FRANK G. PICKELL
WILLIAM PROCTOR
L. W. SMITH
MILO STUART
H. V. CHURCH
M. R. MC DANIEL

Consultative Committee of Secondary-School
Principals of the National
Education Association

Mr. Judd, at the close of his report, moved that this committee be continued. Motion carried.

Mr. L. W. Brooks, Director of Secondary Education of Wichita, Kansas, presented the following resolution:

RESOLVED, That this Department of Secondary-School Principals of the National Education Association hereby tenders the Commissioner of Education its promise of hearty support, and assures him that it stands ready to coöperate in every way. Carried.

Moved that the Consultative Committee through its chairman communicate to the Commissioner of Education its sincere desire to aid in research in secondary education. Carried.

After a distribution of summaries of his address and of Study Helps for High-School Students, Dean J. B. Edmonson of the School of Education of the University of Michigan read his paper on *The Principal's Program for Training Pupils in Habits of Study*.

THE PRINCIPAL'S PROGRAM FOR TRAINING PUPILS IN HABITS OF STUDY

J. B. EDMONSON,

DEAN, SCHOOL OF EDUCATION, UNIVERSITY OF MICHIGAN

In the last decade, principals, supervisors, and teachers have taken an increasing interest in the pupil, in contrast to the former absorption in the subject matter of instruction. This is a change of great significance. It is certain that when all teachers devote their major attention to the pupil and make a genuine effort to adjust materials and methods of instruction to the abilities and needs of the individual pupil, our school system will have undergone a very complete revolution. With the increasing emphasis on the pupil, teachers are coming to accept the idea that their chief function is to stimulate and guide the pupil's learning rather than as formerly to impart information. Teachers are also much more concerned than formerly about effective ways of aiding the pupil in forming right habits of learning in order that he may meet with the maximum of success in his work. There has come a recognition by teachers that the secondary-school work is far from satisfactory unless pupils are trained "how to attack their work through study" and how to study "in the level of self-dependence."¹ With this development has come the demand from teachers for help and guidance from supervisors and principals in the matter of training pupils in habits of study.

For several years the instructors in one of the required courses in education in the University of Michigan have directed the students to interview freshmen. These interviews have been for the purpose of discovering the difficulties that the freshmen encounter in making

¹Morrison, *Practice of Teaching in the Secondary School*, p. 161.

adjustment to the university work. Year after year these university students have reported that freshmen complain particularly of the lack of specific training in matters of study. "We do not know how to study" is the common complaint of students entering our higher institutions. This is a severe indictment of the training in our secondary schools. In many cases the charge is not well founded, but too often it is true that schools have not given definite and specific training in the application of valid principles of study to different fields of learning.

It appears to be easy to secure agreement among high-school principals that the neglect to train pupils in habits of study is entirely unwarranted, but it seems to be difficult to secure agreement as to the effective plans to follow in correcting the weakness. Numerous administrative schemes for insuring the training of pupils in habits of study have been proposed and at least a dozen of these have, according to Monroe,¹ been given a trial. Monroe² declares, however, that we have not gone far in the solution of the problem. He says, "Examination of the descriptions of the plans of supervised study reveals that practically nothing is said about instructional procedures that the teacher should use in directing the learning of students. The voluminous literature on supervised study deals mainly with administrative provisions designed to facilitate the stimulation and direction of learning. The writers appear to have assumed that, if a period was provided, teachers would be able to supervise study."

In our inspection of high schools in the state of Michigan, we find that many schools are interested in the problem of improving the study habits of pupils. In spite of this interest, it is seldom that we find a school committed to any definite policy or practice in the matter of training its pupils in effective habits of work. Through our inspection we are, therefore, urging that every high school in Michigan adopt some definite plan. We hope eventually to require that every school on the accredited list of the university shall have some definite plan for training pupils in study habits.

In order to help schools set up a plan, we have prepared the following plan of a program for training pupils in habits of study.

Step. I. *At the beginning of the year the principal or superintendent should give a talk to the pupils on the importance of acquir-*

¹Monroe, *Directing Learning in the High School*, p. 408.

²Ibid, p. 413.

ing efficient habits of study. (For suggestions concerning points to be emphasized, see references in the bibliography.)

This step is given first place because any plan will fail unless a desire is aroused on the part of pupils to acquire effective habits of work. The reason for this advice is well stated by Kornhauser¹ who declares, "There is one fundamental and indispensable requirement for effective study, more basic than any rules or technique. Without it, real study is impossible though everything else be favorable; with it, results can be achieved even in ignorance of all the fine points of how to study. This key requirement is a *driving motive*, an intense desire to learn and to achieve, and interest in things intellectual, a 'will to do' in your college work. If you would learn to study, first develop a feeling that you *want* to master your studies and that you *will* master them. All else is subordinate to that." It is clearly a part of the duty of the principal to arouse pupils to an awareness of the value of right habits of study.

Step 2. *On or before the time of the assembly talk to pupils, the principal or superintendent should discuss with the teachers the problem of training pupils in efficient habits of study.* (Teachers should examine one or more of the books in the bibliography.)

The principal who assumes that his teachers do not need training in order to do effective work in training pupils in habits of study is making a very serious mistake. It is unfortunately true that few of our teachers have had any special training for this important kind of work. The typical teacher is well trained in testing the preparation of pupils, but poorly prepared to diagnose and care adequately for individual pupil weaknesses. If any plan for improving the technique of study is to succeed, the principal must give special attention to the training in service of his teachers. It is therefore imperative that Step 2 be a part of a principal's program.

Step 3. *A list of specific study helps should be prepared by a committee of teachers and adopted by the teaching staff, or use may be made of the study helps issued by the Michigan Education Association, Lansing Michigan.* (These study helps sell for 75 cents per hundred. Permission is granted to any school to print its own supply.)

¹Kornhauser, *How to Study*, p. 4.

We have prepared a set of *Study Helps for High School Students* and have arranged for their sale at cost through the Michigan Education Association (Lansing). We have not copyrighted this material and schools have been informed that they may reprint the Study Helps.

STUDY HELPS FOR HIGH-SCHOOL STUDENTS

ARRANGED BY INSPECTOR J. B. EDMONSON, UNIVERSITY OF MICHIGAN,
AND ASSISTANT SUPERINTENDENT C. L. GOODRICH,
DEPARTMENT OF PUBLIC INSTRUCTION

1. *Be certain that you prepare the correct assignment in scope, content, and form.* Consider such questions as: What readings, problems, experiments, or topics were assigned? Was part or all of the preparation to be written? What dangers, difficulties, or important points were emphasized by the teacher in making the assignment? Which of these study helps did the teacher urge students to follow?

2. *Have a study program.* Budget your time so as to have a definite time and a definite place to prepare each lesson.

(The teacher will explain how to make a study program card.)

3. *Have proper study conditions and needed materials*—a quiet room not too warm, plenty of light at your left, a straight chair, a table, the necessary dictionaries, rulers, pencils, and other materials.

4. *Make careful preparation of advanced assignment* as soon as possible after a class, but allow time in your study program for review of essential points before going to class.

5. *Do your studying with vigor and determination.* Work while you work. When actually tired, change your work, take exercise, or go to sleep. One must be rested in order to study effectively.

6. *Learn to do two kinds of reading. Read rapidly when seeking to find major points or to make a survey of a lesson.* Read cautiously and critically such material as problems, directions, explanations, and any material that must be interpreted or mastered. Never read rapidly when you should read cautiously. Acquire the habit of analyzing confusing statements. To test the efficiency of your reading and to guard against "skimming" or "day dreaming," pause at the end of

paragraphs or natural units and seek to recall the gist of what you have read.

7. *Avoid acquiring the habit of half mastery.* In committing material to memory learn it as a whole. Do not learn piece-meal. Keep going over the material until you have it letter perfect. In learning rules, forms, poems, dates, vocabularies, etc., it is helpful to repeat them aloud especially if you are expected to give them orally in class. (The teachers will explain the mistake of memorizing material that should be analyzed and understood.)

8. *Hunt for key words, phrases, or sentences; and master the full meaning of these.* Write them on a slip of paper for later review.

9. *Work independently.* Ask for help only after you have exhausted your own resources. Cultivate self-reliance, determination, and independence in work. Pride yourself on your ability to get your lesson done.

10. *Frame questions to test your preparation of a lesson* and use these questions to measure your preparation before going to class.

11. *Attempt to answer to yourself every question that is asked* in class and thus review, test, and drill yourself on essential facts. (Teachers will seek to conduct their classes so as to stimulate you to do this.)

12. *Strive to excel. Do not be contented to "get by."* Convince yourself of the genuine value of doing your best work in each of your studies. Be honest in all work. Be able to answer such a question as: Why is the subject worth studying? (Your teachers will seek to emphasize the invaluable character of the information or training in each study.)

The foregoing Study Helps are based on the contributions of authorities and writers in the field of the psychology of learning. The rules do not, therefore, represent any original contributions of the authors. Some recent writers have very vigorously attacked the contents of certain of the sets of study helps for high-school pupils, and have pointed out that the giving of rules to pupils will accomplish little. You will find that Monroe¹ declares that study helps are certainly a "far cry" from the elaborate plans for the immediate direction

¹ Monroe, *Directing Learning in the High School*, p. 413.

of study called for in other schemes. I fully agree with the criticisms of certain of the sets of study helps. It is a mistake to assume that pupils will be able to take a set of rules and apply them efficiently without much assistance from the teacher. In the set of study helps that has been prepared for Michigan schools, special care has been taken to emphasize the responsibility of the teacher in the training of pupils. This is well illustrated in the first one of the study helps, where questions are included to define the responsibility of the teacher in the making of an assignment. Again the responsibility of the teacher is emphasized in the second item relating to a study program where the statement is included, "The teacher will explain how to make a study program card." In other paragraphs you will find similar reference to the responsibility of the teacher. If your teachers prepare a set of study helps or guides to be placed in the hands of the pupils of your school, may I urge that you insist that the type of service that a teacher should render to a pupil be made an essential part of the statement.

Step 4. Printed copies of the study helps should be distributed to the pupils through their classroom teachers and the pupils directed to paste a copy in each of their textbooks.

Step 4 is a very necessary step in order to insure the united efforts of all teachers. I urge this step because of the tendency of some teachers to neglect to contribute their part to the training of pupils in habits of study. Unless Step 4 is emphasized by the principal, a few of the teachers in a school will become the "trainers" of pupils in effective habits of work while the others will continue to be the "testers" of preparation. If pupils are to be effectively trained, all of the teachers in a given school must be both "trainers" and "testers."

Step 5. The teachers should be directed to take at least ten minutes of each recitation at frequent intervals to teach the pupils how to apply the different study suggestions to their subjects.

I wish to warn principals that the distribution of study helps to pupils will accomplish very little unless the teachers observe Step 5. Pupils need specific instruction in how to apply rules of study just as much as athletes need specific instruction in good form in running, jumping, or swimming. Whipple¹ has stated the reason for Step

¹Whipple, *How to Study Effectively* (rev. ed.), p. 9.

5 when he says, "To bring these rules to the attention of high-school or college students and have them understand them is, accordingly, not difficult. But to have them *apply* the rules to the actual process of studying a given subject is quite another thing. Furthermore, to apply a rule correctly to the actual studying of a subject under the direction and guidance of the teacher is one thing, and to use the same rule daily, without being directed to do so, is quite another thing."

As principals you know that it is easy to acquaint pupils with the rules for effective studying but it is a real and difficult task to cause pupils to cultivate *habits* of effective studying. It should be every teacher's business to see to it that the rules are applied in the work going on under his directions. A principal should give special attention to the practices of his teachers in showing pupils how to apply certain rules of study.

Step 6. *Teachers should use the study helps as a guide in seeking the causes for the failure of individual pupils.*

Teachers should use the study helps as a guide in seeking the causes for the failure of individual pupils. I know of no more effective way to arouse in teachers a desire to discover the real difficulties of pupils than to insist upon Step 6. It is also an excellent way for a teacher to measure the effectiveness of his own instruction in habits of study. I wish to urge that principals refuse to be satisfied with the traditional explanations of pupil failures and insist that teachers use diagnostic aids in discovering real causes. Many teachers are handicapped by insufficient training in the use of diagnostic instruments. Such deficiencies in preparation can be readily overcome through the study of a number of excellent books on pupil measurement and guidance. A principal should take advantage of the presence in his school of failing pupils to stimulate his teachers to become more expert in discovering and removing the learning difficulties of pupils.

Step 7. *Teachers should be encouraged to devise supplementary sets of suggestions to be used by pupils in the study of particular subjects—e.g., algebra, Latin. (For suggestions consult references 4 and 6.)*

It is needless to argue the necessity of Step 7. While it is true that certain rules of study are equally applicable to all subjects, the

fact, nevertheless, remains that pupils need different directions for work in Latin than they need for work in some field of English or mathematics. Teachers will find specific suggestions for different subjects in a recent publication.¹

Step 8. *A copy of the study helps should be mailed to the parents of each pupil with a letter urging coöperation in carrying out rules 2, 3, 5, and 9 of the Michigan list.*

I do not mean to convey the idea, by proposing Step 8, that parents should be held responsible for training pupils in effective habits of study. It must be apparent, however, that certain of the items in the study helps cannot be observed without active coöperation of the school and the home. The necessity for encouraging parents to create more favorable conditions at home for study is very effectively set forth in a poem by Edgar A. Guest, entitled, "Temptations of Youth." A reading of this poem will convince one that Guest knows the difficulties that pupils encounter in home study. He says in part—

"I may tell him that I studied through the winter evenings long,
That I proved my tough examples till I knew that none was wrong;
But when I was reading Cæsar by the lamplight's mellow glow,
The room was always quiet, for we had no radio.
Now the nights are filled with music, and the air is full of song,
There's a prize fight in the parlor. You can hear the ringside gong,
You can hear the crowds applauding as the battle is begun,
And I wonder that a youngster ever gets his homework done."

The majority of high-school pupils must do a certain amount of studying at home or risk low marks. In view of this it seems to me that principals should seek to instruct parents concerning home conditions that are most favorable.

Step 9. *A copy of the study helps should be printed in the local newspaper with the same explanation of the importance of the problem.*

In view of the fact that many parents believe that the high school is neglecting to train pupils in effective habits of work, I would strongly recommend that some attention be given to acquainting the public with efforts made to improve the quality of training in habits of study. Unless this is done, the public will continue to voice criticisms. As a

¹ Teuton, *Suggestions for Effective Study in Secondary Schools*.

part of his public relations program a principal should give the public some information concerning his program for training pupils in habits of study. I think there is a further reason for printing the study helps in the local paper, which is to be found in the desire that many people possess, outside of school, to improve their own habits of study.

Step 10. Teachers should be urged to take an experimental attitude toward the undertaking, and should at frequent intervals be required to make an inventory of results.

This last step is proposed because it is extremely important to encourage teachers to take an experimental point of view towards the problem of training pupils in habits of study. It is highly desirable to cause them to feel that the problem is not one that lends itself to an easy solution. It is, therefore, a problem on which all classroom teachers may make some valuable contribution. It is, in my opinion, a mistake to introduce any plan for training pupils in habits of study in such a way as to suggest to teachers that the proposed plan is a "cure all," and that if it fails the teachers are to blame. If Step 10 is followed, teachers will from time to time be called upon to pool their opinions and their findings relative to the changes that have been taking place in the study habits of the pupils. Such an invoice of results is quite certain to reveal some elements of strength and other elements of weakness in the program that has been set up in the school.

The question may be raised by some, Do we need a program for a given school or may we safely leave this problem to the individual teachers? It is my own observation that a specific program is needed. Many of the teachers are not prepared to work out procedures of their own for the training of pupils in habits of study. Other teachers will say as one of the teachers of my own state said to me this past year, "I am so busy trying to cover the outline of my course that I do not have time to train pupils in habits of study." In turn there are many habits of study that can only be developed and strengthened through united emphasis on the part of all the teachers. I have also found in my inspection of high schools that where the problem was left to the teachers, only a small minority of the teachers were giving any attention to the problem.

In view of the helpful material now available in books and bulletins, there is little excuse for a school failing to work out a plan for

training pupils in habits of study. The plan outlined in the foregoing paragraphs may be followed with modifications, or a school may develop an entirely different procedure. It is presented in order to get a program before you. What appears to be most needed, however, is a more positive conviction on the part of principals that it is part of their responsibility to insure that teachers train their pupils in effective habits of work. To do this requires the constant and vigorous efforts of the principals.

Professor of Education, W. Carson Ryan, Jr., of Swarthmore College, Pennsylvania, read his paper, *Selection as a Function of American Secondary Education*.

SELECTION AS A FUNCTION OF AMERICAN SECONDARY EDUCATION

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One who speaks on the selective function of American secondary education at the present juncture is under peculiar obligation to state promptly and unequivocally where he stands on the American public high school and its expansion. Let me say at the outset, therefore, that I believe in this expansion; that I regard the ideal of high-school education or the equivalent for every boy and girl as not only feasible, but essential. We who are concerned with American education must not allow ourselves to be diverted from this goal of universal secondary schooling by the wails of those who complain on principle, in terms of "sanctified squander," about expenditures for public education. We must not be diverted from our goal by the comparatively few of the private secondary school group who for commercial or social reasons resent the expansion of good secondary-school facilities at public expense; by the few remaining university presidents, chiefly in the East, who do not understand and apparently do not intend to understand the philosophy of American public education; by those who honestly but mistakenly confuse the older European goals with our present ones; or by that minority among American industrialists—I am convinced it is really a minority—

who are so short-sighted as to wish to have large numbers of children leave school early, not realizing that a large part of American material prosperity—to say nothing of much that is even more precious—is directly due to the expansion of school opportunities upward for the great mass of our population.

We are clearly committed to a policy of universal secondary education in this country, much more clearly in practice than many of our own group seem to realize, so rapid has been the development. I remember Dr. Claxton saying in 1913: "Think of it! We have a million boys and girls in high school!" It was an unheard of thing. If some one had said to Dr. Claxton and the rest of us in the Bureau of Education at that time that this enrollment was to double in a few short years and then more than double again, I doubt whether the most sanguine among us would have believed it; yet that is precisely what has happened. It is the upper reaches that are particularly significant. Of the seven and a half million youth between fifteen and eighteen years of age in the United States more than two-thirds are now in school. The 1920 Census showed half the sixteen-year olds in school, a third of the seventeen-year olds, one fifth of the eighteen-year olds. Next year's census will almost certainly show not less than three-fourth of the sixteen-year olds in school, half the seventeen-year olds, and at least a third of the eighteen-year olds. What other nations are likely to term *selection* we are calling *pupil-mortality*. We actually try, and succeed measurably, in the task of keeping people in school—and even in college—rather than shoving them out. Not only do we have nearly five millions in secondary schools, but we have doubled our teaching force in these schools since 1920—less than a hundred thousand then, more than two hundred thousand now—and we are apparently already spending more annually for secondary education than our foremost authority in 1922 believed the public could ever be prevailed upon to spend.

From the point of view of comparative education this is, of course, stupendous. Literally nothing quite like it has ever happened before, so far as we know, though many people in other countries are watching us with very great interest, and far more important developments in this direction are coming in Europe than some school officials admit. One of our most competent observers recently said:

"There can be no question that suitable education during the adolescent years should devolve as a right and obli-

gation on every child that comes to maturity within our borders. . . . It is becoming quite clear that the years between twelve and eighteen, or thereabouts, constitute the period during which proper education, combined with the development of sound health and normal habits, are of the utmost importance for the subsequent happiness of the individual and for the welfare of the nation."

That, by the way, is not a quotation from Professor Counts or any of the other of our best-known protagonists of universal secondary education. It is from a publication frequently cited on the other side of this controversy—Bulletin 20, of the Carnegie Foundation for the Advancement of Teaching, "The Quality of the Educational Process in the United States and in Europe," by W. S. Learned.

The Question of Selection.—Is there, then, a real place for selection as a function of the secondary school? I believe there is. To have faith in education for all is not to have faith in the same kind of education for all. Our real task is to use selection, but to see to it that this is not selection for elimination, but selection for further and better opportunity for each individual youngster. Somehow we must find a way of solving the very old question of mass education on an individual basis. Admitting the very great importance of going to school together through youth, of working, playing, and living together, in schoolroom and on the playground, we must save these gains and yet help our people to realize that to have different interests, to be able to do different things, mentally, socially, emotionally, artistically, is not inconsistent with democracy, but is, on the contrary, a necessary part of real equality of opportunity and real coöperative effort for democracy.

If we are to have, in accordance with some of the principles underlying the articulation program presented at this Cleveland meeting, a genuine provision of secondary education for all between the ages of twelve and eighteen or twenty years of age, what are we going to do about it, and where does the selection come in? What are we going to do with these precious six or eight years through which Ross Finney says teachers are going to make the future as truly as soldiers and diplomats have made the past? Briefly, I believe the steps we are going to take will include at least these:

(1) A genuine reorganization of the content of secondary education, to include both common material and specialized;

(2) A real effort in the direction of individual and creative rather than mass and routine methods;

(3) An insistence upon *quality* in the entire process that has so far been lost sight of in secondary education.

1. *Reorganization of the Curriculum.*—Any one who takes a long-time view of education is obliged to conclude that a real reorganization of content has only just begun. Somebody will have to do a blasting job on the secondary school curriculum similar to the one Rugg began two years ago, mainly for elementary education in the *Yearbook of the National Society* and has recently continued in "The Child-Centered School," which I believe is destined to be one of the significantly controversial books of our time. It is going to be a more difficult thing to do it for the secondary period, for there are more entrenched absurdities and most of us do not see any fundamental reason for change. We go cheerfully along on the theory that if we add new "subjects" (as we call them), that will suffice. The futility of this accretion method has been shown up convincingly in some recent books, notably in Thomas Jesse Jones' "Four Essentials of Education," but few of us are reached by this type of educational writing. We still think, most of us, in terms of the "regular" school subjects in the secondary school, not because these have ever been subjected to any real tests of cultural, social, practical, or even intellectual values, but because they have been there a long time.

What we really eventually ought to do, but what nobody is yet ready to do, is to face the whole problem of content for the secondary school anew, without preconceived notions in favor of what we find there. We need to sit down and say to ourselves: What is this modern life of ours anyway? What are its beauties, its opportunities, its needs? What is this culture that we are to pass on, to use the words of Briggs in the 1929 yearbook? What are these heritages and these creative things that we are to put into the secondary school, and how shall we see that everybody—regardless of whether he's in the upper quartile, regardless of whether he can survive a linguistic scholastic aptitude test—gets at least some glimpse of these richer things that are the only real excuse for modern civilization? If we

did this conscientiously I think almost nothing of the traditional secondary-school content would remain. That it would have been the answer at one period probably nobody could deny—for it was a noble effort, and a successful effort, to open the accumulated cultures of at least two ancient civilizations to a newer age. To-day almost none of it could stand any such test. Apply to the current offerings in language and mathematics any real definition of the process of reflective thinking from Locke to Dewey and see how little of it is intellectual in any sense—to use the one last defence of those among us who would preserve the heritage only in its linguistic and mechanistic survivals. Think of the insistence of language as an instrument of selection—which by the way, appears to be on the increase as a means of admission for college, at least, instead of on the wane, as we had thought. There is a tragic story here on the Greek and Latin side which I will refrain from telling, only reminding you that insistence on the mere verbal survivals of two once great civilizations, with no real effort to make the vital intellectual and emotional relation to our own, has cost us one of the most precious aids to an understanding of modern life. Instead I will take my example from modern foreign language, especially since there is a present crisis there that seems to be going almost unnoticed. As a modern language teacher for some years and still an interested amateur in that field (if the reports of the Modern Language Inquiry are correct I must be one of the few people who still read foreign language after college days) I am convinced that we are at present going through a desperately barren period of foreign language teaching in the secondary schools. The teachers of French, for example, seem obsessed with the notion that nobody can learn to read French without first learning all the grammar that can be recorded. This is the same fallacy that the teachers of beginning reading in the primary school have fortunately worked themselves delightfully free from in good modern schools. Now language as language has practically no intellectual value; the content is the main thing. Professor Henmon, reviewing the results of the Modern Language Inquiry, points out that there is little correlation between teachers' marks and actual achievement as measured by tests in the foreign language, because the teachers tend to put all the emphasis upon the grammar in their marking, and he characterizes this as one of the real defects revealed in the investigation. I use the situation in modern-language teaching merely as an example of the need for dynamiting followed by constructive re-

building that will be necessary in the whole content situation, whether for determining and putting into operation a common basic material or arranging offerings of a specialized sort for groups and individuals beyond the common materials. Some of us may remember that the Classical Inquiry demonstrated the value of Latin as a secondary-school activity by asking the teachers of Latin throughout the country whether Latin was valuable or not. The other subject-matter inquiries have seldom been quite like that, but surely we must eventually come to a practical recognition of the fact that if we depend upon this method, even in the hands of capable and honest investigators, we shall never get anywhere in making a real content for the secondary school. Even in an activity like English we tend to take too much for granted. Though we have taken some real steps towards freedom here, on the whole we still think of English as meticulous correctness rather than as creative expression and appreciation, thereby placing ourselves under the suspicion—which you will find quite audibly expressed at Adult Education Association meetings if not elsewhere—of sending out high-school graduates who do not read books any more because they have been so completely conditioned against reading as a result of assigned task-reading in school.

If the theory that I have tried to express has any validity it means that only those "constants" will eventually deserve a place in secondary education that can stand the test of modern usefulness in terms of cultural understandings or industrial and social needs. That even these constants, given as part of a mass educational provision, can be usefully adapted to different abilities, interests, and needs, I believe can be demonstrated, but I shall postpone discussion of that for a minute or two. In any case, these constants, this common material, whatever we decide it shall be and however we decide it shall be given, must be supplemented by the widest possible offerings at public expense. However much synthesis may be found to be necessary, in the last analysis, proper economies of a practical nature being kept in mind, I see no reason why society, through public expenditure, should not provide any possible training that can be proved to have social value or the kind of value for the individual that ultimately contributes to the welfare of all. Furthermore, the possibilities of a varied offering, especially in small schools, are often not realized. Not caring much to make the change, we have not tried very hard to do it.

2. *Individualizing Secondary Education.*—One of the real clues to securing attention to individual differences in a mass education program is *individual learning*. We are still so under the spell of rigid grades, rigid subject-matter stratification, and formal class-teaching that we have so far declined to make on any really great scale the experiments in individualizing the secondary school that need to be tried. One may quarrel with certain of the accompanying philosophy of Winnetka and Dalton procedures as one finds them in different localities, but enough has been done to show that there are real possibilities here; that the individual method for certain things at least is not only desirable, but feasible and efficient—efficient and economical indeed, in the truest sense of the terms.. At least one secondary school that I know of—a large secondary school in what some people would regard as a less favored environment—has demonstrated that the most gifted children can be accommodated under mass conditions, getting magnificent gains as individuals without in any way jeopardizing the democratic quality of the school or its essential standing as a coöperative enterprise. Such a plan, if worked out carefully, apparently avoids the social and emotional losses that so far have seemed to be inevitable accompaniments of the so-called homogeneous grouping method—there being, of course, no such thing as real homogeneous grouping in any sense, not even in the narrow academic activities usually covered by this practice.

Much of the despair over our supposed inability to provide differentiation in the thousands of smaller high schools in the United States is due to our blindness to the possibilities of individualizing under superior leadership. E. E. Windes made a suggestion when he was in the Bureau of Education two or three years ago that has never had the attention it deserves. Apparently the plan, as he advanced it, sounded so radical that none of the several thousand school people who heard him gave it another thought. He proposed, as some of you may know, that instead of weak staffs of four and five underpaid, under-educated and overburdened teachers for these schools of from twenty to eighty pupils, one university man or woman of unusually good training and a salary several times what would ordinarily be paid in such a community, be put in charge, with a very fine teacher-librarian as the other member of the staff. The job of this staff of two would be direct, in a way none of the typical high-school teachers

could have done it, the enterprise of learning in that school. If this seems unduly fanciful to you, let me remind you that many of the most famous and successful academies of the early nineteenth century were organized on precisely this basis, except that present resources for directed learning are so superior to what they were a century ago that there is no comparison. Mr. Windes' proposal included professional supervision of a good type on a county or regional arrangement. It will be noticed that the plan would not be more costly than at present, on the whole; it would provide expert direction instead of haphazard teaching; it would capitalize the individual initiative of pupils, not only in intellectual learnings of the book type, but in athletics and other similar activities, where at present nearly everything is the wholly uneducational method of coaching from the side lines; it would make possible a synthesis, an interrelation of learnings quite impossible under any present plan of isolated departments and courses; it would emphasize achievement rather than "time-spent"—one of the curses of the present scheme of things, as Morrison has so well shown; it would allow considerable differentiation, in rates of learning, in kinds of material learned, in treatment for further learning opportunities or vocational opportunities—in other words, educational and vocational counseling.

If we are to carry all our youth through a secondary-school period, in city and country alike, we shall have to carry on experimentation with the types of individualized learning here described. There will always, for certain purposes, be advantages in grouping small units into somewhat larger ones, doubtless, but we have not begun to explore the possibilities of skillfully directed individual learning in the literally thousands of small country high schools that will always exist as well as in the large city high schools where differentiation, because of sheer numbers, has superficially seemed more practicable.

3. *The Quality of the Educational Process.*—In the plan just suggested, attributed to Mr. Windes, the quality of the direction of the educational enterprise was the key to any possible success. We have certainly had to give our energies so much in the past to taking care of the numbers that we have had to pay less heed to the quality of the job we were doing. I do not mean that we should feel discouraged about it; quite the contrary. There are some very encouraging signs. Since I have put on record my personal conviction about the teaching

of French and have called upon the Modern Language Inquiry to support my statement, I must be honest with you and state that the same investigation apparently shows that in actual achievement in foreign language the pupils in American secondary schools surpassed (on the same standard tests) corresponding pupils in both Canadian and English secondary schools. The North Central Association has for some time had from ninety to nearly a hundred per cent of its teaching staffs at least four-year college and university graduates, and has been able to insist upon some professional preparation besides. The Southern Association, with only a seventy-five per cent requirement, recently announced a more than ninety per cent achievement on the basis indicated—that is, college and university graduation.

But here after all is our real weakness. Those of us who are engaged all the time in placing teachers know only too well about the alleged over-supply in certain regions—which turns out to be, as one might expect, an oversupply of poorly qualified candidates for teaching and a tragic undersupply of the kind of teachers that are needed to put genuine quality into American secondary education. Any real program in secondary education waits upon this. Every study of the qualifications of teachers shows how many are teaching with no real mastery of the materials. The richest potentialities of the junior high school are unrealized because of the lack of real teachers—think how many general science courses, general social studies courses, and other of the more hopeful efforts at new content are losing out because there are simply not enough real master-teachers to make them what they ought to be. We ought to face this squarely. If we are to profit by such individual plans as have been mentioned; if we are to take advantage of the study of seventh and eighth-grade pupils Supt. Davidson told the Vocational Guidance Association about the other day—a real experiment in differentiation; if we are to make the kind of progress in secondary content that will be comparable, for example, to the work of the Lincoln School *Elementary* staff, we shall have to look more searchingly to the quality of our teachers.

America and Foreign Schools.—It is necessary to omit so many important considerations in any such brief survey as this. One more point must, however, be mentioned. In our problem of furnishing

universal secondary education and adequate differentiation it will be valuable for us to give careful study to the experience of nations other than our own. I hope I have shown that I am not interested in converting anybody to a European philosophy of education—or, for that matter, to an Indian, a Japanese or a West African philosophy of education. We need, however, to know very much more about foreign educational systems than we now know. Europe has something in secondary education that we ought to know, by all means let us study it. It may not modify our practice at all, but at least it will help us to understand better what we are doing. I have always felt that one visit to a Glasgow school made me understand better something about the junior high-school movement in America than I had ever been able to get it in any American books on the subject. I would not study Germany and France and England alone. I would study Italy right now, with Mussolini's attempt to prove that the history of education is wrong when it says no imposed civilization will endure; I would study the Balilla, that experiment in mass education for youth that is infinitely more significant than any school program; I would study Russia, via Mrs. Wilson, Dr. Counts, John Dewey, Lotus Coffman, and other competent American investigators—that is, if I couldn't do it first hand; or I'd read the "Diary of a Communist Schoolboy." Surveys of education all over the world are making it easier than it ever has been before to understand what other countries are doing in the effort to educate youth and thereby understand better what we are trying to do. Is this undemocratic? On the contrary, it is essential to democracy. If our democracy and its philosophy of the greatest spread of education for all youth cannot stand every possible scrutiny; if it cannot make a place for studying methods used everywhere for giving individuals their best opportunity, then heaven help our democracy!

Selection is a function of American secondary education. It is not, and must not be, however, selection by elimination, but selection for additional opportunity. It needs to be based upon the broadest possible general provision, with as many common elements as possible; it must recognize the possibility of genuine intellectual interests among the entire group regardless of so-called levels of mental ability; it sees in individual learning a special way out for meeting individual differences, interests, aptitudes, and needs, and it presupposes, whatever the method of differentiation arranged for, a complete remaking

of the content of secondary education and a quality in the educational process hitherto not sufficiently insisted upon.

Professor George S. Counts, Director of the International Institute, Columbia University, then read his address:

SELECTION AS A FUNCTION OF AMERICAN SECONDARY¹ EDUCATION

GEORGE S. COUNTS,
TEACHERS COLLEGE, COLUMBIA UNIVERSITY

Our discussion this morning of Selection as a Function of American Secondary Education would seem to rest upon an assumption which I would like to challenge. That assumption is that the determination of the degree to which the public high school in the United States is to be selective rests largely with us, that is, with the teaching profession. This I do not believe. What we may say or decide here regarding the proportion of the population to be admitted to the public high school will not in the long run greatly affect the situation. If we were living in a society with a highly organized central government dominated by some self-conscious minority, we might expect a different result. But in America with our decentralization of government and the absence of any such self-conscious minority the masses of the people will sooner or later get what they want. In order to make this point clear let us turn our attention to an examination of the recent expansion of secondary education.

We are all familiar with the fact that since 1890 the number of boys and girls attending our secondary schools has grown at an ever more rapid rate. Thirty-eight years ago there were probably not more than 300,000 pupils in these institutions, while to-day the total is certainly as much as four and one-half millions and perhaps not far from five millions. Almost within the span of a single generation attendance at a secondary school has ceased to be a rare privilege and instead has become an opportunity or almost a right enjoyed by half of the nation's adolescent members. Indeed in many communities practically all children of appropriate age are in high school.

¹ Much of the material in this paper is drawn from the author's *English Lecture of 1929*.

This truly extraordinary phenomenon, without precedent, I think, in the history of education, should be ranked among the great social movements of our dynamic age. While conceding that the enrichment of the high-school curriculum, the modification of promotion arrangements, and the introduction of new methods of instruction have probably accelerated the democratization of the secondary school, I am confident that the real forces at work are of a much more fundamental character. According to the historical record of a generation ago our profession as a whole neither advocated nor even anticipated the extraordinary changes that were about to transform the secondary school. To be sure, here and there towards the close of the nineteenth century prophetic individuals, such as John Dewey and William Rainey Harper, were able to penetrate the future and see the faint outlines of coming events; but the great mass of teachers and administrators were more effective in perpetuating tradition than in creating a new type of institution. In fact I would be quite willing to defend the thesis that for the most part they opposed rather than supported the attack of the populace upon this ancient citadel of aristocracy. Such a statement should, of course, be interpreted neither as condemnation nor as approval, but, if true, merely as statement of fact.

This crowding of boys and girls into the public high school suggests some great natural phenomenon, such as the advance of an avalanche down the mountain side, the increase of an animal species after the discovery of a new food supply, or the migration of a people following the conquest of some natural barrier. Great events, though often precipitated by relatively feeble happenings, can be adequately explained only in terms of equally great causes. In brief we may say therefore that the growth of the high school is the product of a new social order—the resultant of a whole series of forces and conditions which we call industrial civilization. And by industrial civilization we do not refer merely to the appearance of great cities and huge economic combinations but rather to the coming of highly integrated society which holds within its close embrace the metropolitan center and rural hamlet, industrial enterprise and vegetable garden, shop and field and factory. But let us turn to a more specific answer to our query.

To my mind there are seven factors which working in intimate union have been largely responsible for bringing the secondary school into the fourth great creative period of its history since the fall of

the ancient empires. The rapid democratization of secondary education in our time may be traced to the presence of certain social ideals in the United States, the prior extension of the opportunities of elementary education, the appearance of a highly integrated society, the growing complexity of civilization, the increase in wealth and income, the decrease in the death rate, and the decline of the birth rate. A brief examination of each of these factors will reveal its bearing on the question at hand.

The first of these seven factors is a heritage from the agrarian civilization. In response to a rare combination of life conditions our ancestors developed certain ideals regarding the nature of man and the place of the individual in society. Under the influence of the frontier and the simple farming community of pioneer origins, they threw off the artificial social distinctions which had characterized the older civilizations and evolved a theory of democracy suited to their mode of life. According to this theory the individual should be judged in terms of inherent worth and be permitted to achieve that station in society to which he is entitled by reason of his own talents, efforts, and character. While some may prefer to call this view of life individualism rather than democracy, the point which I wish to make is that it would seem to underly our educational system and to have furnished the inspiration for the creation of the public high school as an upward extension of elementary education. We should observe, however, that the agrarian civilization which produced a system of schools open to all classes from bottom to top made but little use of the upper levels of that system. Before the coming of industrial society the high school was theoretically open to all, but few took advantage of the opportunity offered. We may say therefore that the older and in many ways more democratic society fashioned the educational channels through which in a later age powerful popular currents were destined to flow.

The extension of the opportunities of elementary education also constitutes one of the achievements of the agrarian civilization. Although our states have enlarged the scope and improved the administration of their compulsory education laws during the past generation, the really creative period in the development of the elementary school centered largely in the second and third quarters of the nineteenth century. And this achievement was of course a necessary foundation for the subsequent growth of secondary education. Since

the high school is based upon the elementary school, the expansion of the former could not go forward until the development of the latter was well advanced. The extraordinary increase in attendance at colleges and universities during the past ten years is no doubt in part the natural fruit of the earlier growth of the high-school population.

It was the appearance of the new civilization, however, that furnished to the masses of the people the motive and the opportunity to attend the secondary school. And one of the most characteristic features of industrial society is that of integration. From coast to coast and from the Great Lakes to the Gulf of Mexico, to confine our attention entirely to the domestic situation, our society is bound together by a billion strands which multiply and grow stronger with every passing year. On the one hand, regions, groups, and individuals specialize increasingly and become more and more dependent upon each other and upon the whole; and, on the other, the evolution of the means of transportation and communication provides the instruments of this specialization and inter-dependence. If we take the spread of these inventions as an index of the increasing integration of society, we shall find that it has proceeded *pari passu* with the expansion of the high school. Thus, in 1842 there were but 4,000 miles of railroad in the United States. By 1860 this figure had increased to 31,000, by 1880 to 93,000, by 1900 to 199,000, and by 1920 to 264,000. The development of the telephone is confined to an even shorter period. The number of telephones in the country grew from 31,000 in 1880 to 1,300,000 in 1900, to 12,500,000 in 1920, and to 16,900,000 in 1926. But the story which the automobile tells is yet more emphatic. In 1899 we could boast less than 4,000 motor vehicles of all kinds; in January 1927 we had more than 22,000,000 automobiles or approximately eighty-one per cent of the automobiles of the world. If to these three sets of inventions we add the improved road, the printing press, the moving picture, the postal system, the telegraph, the airplane, the radio and all other instruments of transportation and communication, the conclusion is forced upon us that during the last generation we have become the most highly integrated society of history.

The bearing of these changes on the question of the extension of educational opportunity is obvious. In the first place, the development of means of rapid transportation in a relatively thinly populated

country made attendance at high schools practically possible where formerly it had been only theoretically possible. In other words, during the past generation secondary education has been made geographically accessible; and various studies have shown the vital significance of distance in determining school attendance. In the second place, the integration of society makes necessary a widening of the intellectual and social horizon of the individual. Particularly does it require the bearing of heavier burdens in the realm of politics and social life. The citizen is brought into a larger society, a society which in considerable part he can know only indirectly and from a distance. This means that he must come to depend less and less on immediate and unorganized personal experience and more and more upon various formal agencies of education and report, such as the school and the press. In the third place, the integration of society opens up to the individual occupational opportunities of the most diverse kind. Because of increased mobility he is no longer confined in his choices to the life of the narrow and limited geographical and social circle into which he was born. He therefore feels the need of being equipped to range far from home and family, to meet strange situations, and to control the course of his own life. In the fourth place, a highly integrated society is of necessity correspondingly complex. But this leads us to our next point.

Industrialism has given birth to a society of enormous complexity. As function has been differentiated from function and as the base of society has widened, social structure has been reared upon social structure until industrial civilization has come to take on the likeness of one of its own children—the modern skyscraper whose bones of steel and flesh of stone reach towards the heavens in every metropolitan center. A very good measure of this complexity may be found in our occupational life. Whereas before the days of industrialism our occupations could be counted by hundreds, now they can only be numbered by thousands. In securing occupational data in 1920 the Census Bureau found it necessary to compile an index containing "20,000 or more occupational designations." But as a measure of societal complexity the character of the occupations and their inter-relationships are probably more significant than mere numbers. In order to coördinate the work of different groups and to operate our complicated system of exchange and distribution an ever increasing proportion of the population has been removed from direct participa-

tion in the production of goods. Thus, according to one investigator, while in 1850 there were approximately four producers for every distributor, in 1920 these two groups were equal in number. Although such estimates no doubt contain a large probable error, they nevertheless speak most emphatically of the appearance of a new type of economic order. They show that upon the old foundation of farmers and artisans there has been erected a huge superstructure of clerks, accountants, salesmen, managers, brokers, longshoremen, and locomotive engineers.

Back of this complex social mechanism, as back of the skyscraper, stands the supporting spiritual structure of science and technology. The knowledge and experience necessary for managing the old agrarian order could be gained for the most part through the ordinary processes of living; the knowledge and experience necessary for managing industrial society must be gained increasingly through the more systematic methods of formally organized educational agencies. While in the rural community of 1850, book learning was often despised and generally regarded as of little practical value for the ordinary citizen, in the present social order it is coming to be looked upon as essential to individual success in almost every field of practical endeavor. As this new view began to penetrate the consciousness of the masses in a society organized about the principle that the individual should seek his own social level, there could be but one result. Parents engaged in a mad scramble to place their children in the line of succession leading to the more favored and profitable occupations. Men and women whose forefathers for generations had been pioneers and farmers sacrificed their own comforts in order that their sons and daughters might gather the material fruits of industrialism. Although they sang the praises of the dignity of manual labor, they knew well the aches and pains and meagre pecuniary rewards of hard physical toil and hoped that their children might be admitted to the easier, more comfortable and more remunerative social berths. Consequently as soon as society provided the motive in the form of new occupational opportunities at the more favored levels, the scene was laid for an expansion of the secondary and higher schools which could be limited only by the bounds set by the advance of industrialism.

If, however, society had not provided enlarged material resources for the support of an extended educational program, the extra-

ordinary growth of the high school population could not have taken place. But industrialism in the United States represents a mastery over the forces of nature and the processes of production that places it in a unique position in the economic history of the race. The increase of the wealth and income of the American people since the opening of the present century constitutes one of the miracles of civilization. In 1900 the estimated national wealth of the United States was approximately 89,000,000,000 of dollars; in 1922 it reached the fabulous figure of 331,000,000,000. This increase in dollars, of course, since there was a very marked depreciation of the currency during the period under consideration, does not represent a corresponding increase in wealth. If we convert the dollars for both years into 1913 dollars, the figure for 1900 rises to 116,000,000,000 and that for 1922 declines to 202,000,000,000. But even so, our increase in wealth bears no particular relation to the growth of population and is nothing short of phenomenal. And the advances in the national income are of equal or even greater significance. From 1909 to 1926 the income of the people of the United States in current dollars increased from approximately 27,000,000,000 to almost 90,000,000,000. In terms of 1913 dollars the change was from 28,000,000,000 to 53,000,000,000. During the five year period from 1921 to 1926 our income increased almost fifty per cent. We seem even to-day to be in the midst of a new economic revolution which may prove as significant as the invention of power-driven machinery in the eighteenth century.

That this growing mastery over nature has affected the extension of educational opportunity cannot be doubted. In fact, I am convinced that the expansion of the high school during the past generation is largely the fruit of victory in the economic field. We must never forget that the attendance at our secondary schools of one-half of the children between the ages of fourteen and eighteen years places an enormous financial burden upon society. There are of course the obvious direct expenditures involved in the purchase of school sites, the erection of buildings, the payment of teacher's salaries, and the meeting of current expenses; but the major social burden is the gift of leisure to young persons of both sexes who have reached the age of possible self-support. There are many peoples in the world to-day for whom such an extension of privilege would mean literal bankruptcy. Indeed there is probably no society other than our own that

could afford this extraordinary luxury. But in our case the growth of the secondary school has gone forward without putting the least apparent strain on the economic system, and the universal extension of the opportunities of secondary education to all children of appropriate age would probably consume only a fraction of the economic gains of a single year.

We come now to the consideration of a series of changes in our civilization which, while somewhat less obvious than the growth of our systems of communication and transportation and the increase in wealth and income are certainly no less significant. I refer to changes in vital phenomena. For a century and more, and particularly during the past half-century, both our birth and death rates have steadily declined. A hundred years ago the limitations of the birth-rate was left to natural law, the lust of man and the will of God. As a consequence large families were the rule and probably the average number of children per mother was not far from six. To-day, owing to the spread of knowledge of contraceptives as well as to the operation of somewhat more obscure causes, this number has been reduced by half.

With the spread of material comfort, the advance of medical knowledge, and the application of the principles of personal and social hygiene the death rate has likewise been greatly reduced. What the average expectation of life was in our country at the time of the founding of the nation no one can say with certainty, but it was probably somewhere between thirty-five and forty years. In the meantime, and more especially in the last generation or two, this has been increased to approximately fifty-eight years. In summarizing our more recent gains in this field a student of the question has said that "over one-third of the total burden of disease and early death which weighed upon the human race fifty years ago has been lifted from its shoulders."

The decline of the birth rate and the extension of the life span working together have produced changes in the ratio of children to adults that are genuinely revolutionary in character. And it is only when we examine this ratio and its social, economic and educational implications that we realize how the cultural advance of the great masses of the people must hang upon the voluntary control of birth and death. In 1920 there were in the United States close to 63,500,000

white persons above sixteen years of age. Now, if the ratio within the white population between persons above sixteen to those below sixteen had been the same in 1920 that it was in 1790, in other words, if the same general conditions with regard to birth and death rates had prevailed in the later as in the earlier period, these 63,500,000 persons above sixteen would have been supporting 61,000,000 children below that age. As a matter of fact in 1920 there were only 31,500,000 white children under sixteen in the United States. This means that where the earlier society had two children to care for and educate ours has but one. Indeed the ratio now is probably greater than two to one because our figures are already eight years old and these vital changes have been going forward more rapidly in recent than in former years.

Before commenting on the bearing of these figures on the expansion of secondary education let us consider one other relationship. If we may regard persons above twenty years of age as adults and persons below sixteen as children, the ratio between these two groups would seem to possess unusual significance. In 1790 for every 1000 children, according to our definitions, there were but 780 adults. Down almost to the middle of the nineteenth century there was comparatively little change in these figures, but since that time the proportion of the population above twenty years of age has grown at an extraordinary rate. By 1900 there were 1580 adults for every 1000 children, by 1920 approximately 1880, and to-day the figure cannot be far from 2000. These statistics should be pondered again and again, and then they should be pondered some more. While there is perhaps some truth in the statement that whereas children were an asset in 1850 they are a liability now, we must not overlook the fact that they were an asset in the earlier period in part because they were put to tasks which robbed childhood of much of its freshness and spontaneity. Although to-day we often make ill use of the leisure which we are able to extend to our children, we at least have fashioned a society in which our good intentions are limited only by our collective intelligence. We have emancipated ourselves from those harsh material circumstances which cut short the period of childhood and doomed the masses of the people to a life of physical privation bounded by a narrow intellectual outlook and sustained by the hope of rest beyond the grave.

Even though the rise of industrialism and the control over production might conceivably have been possible in the absence of these far-reaching changes in death and birth rates, the great expansion of secondary education could scarcely have gone forward without them. It is an old economic principle that value is largely a function of scarcity. Even in the case of children we may assume, as a general rule, that as the number increases the solicitude of the parent for each tends to decrease. Perhaps this is less a purely psychological matter than it is a response to the inadequacy of parental income and the pressure of population upon the means of subsistence. But whatever may be the metaphysics of the question, the fact remains that with the increase in the proportion of adults in the population the economic burden can be lifted from the shoulders of children. This is precisely what has been happening in our country during the past generation; and there is no reason for believing that we have reached the end. We may even witness, despite the protests of college presidents and university faculties, the much further extension of educational opportunities beyond the high-school period. To-day the total enrollment in all of our institutions of higher education exceeds the registration in our secondary schools in 1910. The energies generated by steam and electricity, transmuted into social movement and human aspiration, are causing old cultural landmarks to crumble and time-honored customs to take the road to oblivion.

If my analysis of the social forces playing upon the public high school is fundamentally sound, as I think it is, society sets definite limits to the task which we as specialists in secondary education may perform. In the large it would seem that the broad outlines of the secondary school are fixed by the social order. Within these boundaries we are free to work, but if we essay to pass beyond them our efforts are certain to be sterile. In other words any defensible or sound theory of secondary education must be in essential harmony with the great social trends which characterize the age. So it is in this matter of selection. We might all wish to bring back the highly selective secondary school of history, but industrial society has decreed otherwise.

That society has brought into the public high school children from practically all social classes and all levels of ability; it has rendered obsolete much of the theory and many of the practices of the secondary school of the past; it has raised a whole series of new

problems and plunged the secondary school into one of the most critical periods of its history; it has shattered the traditional moulds of secondary education and opened the way to bold experimentation along new lines; it has broken the ties which bound the secondary school to the privileged classes and to the aristocratic ideal in social life; it has given us a new conception of secondary education—the conception that it is the function of the public high school to meet the educational needs of adolescence as it is the function of the elementary school to meet the needs of childhood. Our task is to create a totally new secondary school within the limits set by the new civilization.

THE THIRD SESSION

The third session of the Cleveland convention was held in the Cameo Ballroom of Hotel Winton. L. W. Brooks, Director of Secondary Education, Wichita, Kansas, called the meeting to order at 2:25 P.M., Tuesday, February 26.

Mr. Brooks introduced M. Channing Wagner, Principal of High School, Wilmington, Delaware, who read his paper on *The Supervision of Extra-Curriculum Activities in Secondary Schools*.

THE SUPERVISION OF EXTRA-CURRICULUM ACTIVITIES IN SECONDARY SCHOOLS

M. CHANNING WAGNER,
PRINCIPAL, HIGH SCHOOL, WILMINGTON, DELAWARE

It shall be the purpose of this paper to point out the problems connected with the supervision of extra-curriculum activities in the modern high school, and to suggest various methods to make such supervision efficient and worth while.

In any scheme of supervision it is first necessary to consider the place of the principal in this plan. The principal must be held responsible for the many sided development of the cosmopolitan school population. The vision of the school program of extra-curriculum activities must emanate from the office of the high-school principal. He must be able to see the scope of the work, its relation to the curriculum work of the school and the influence that it has on the student body.

Then, there is the responsibility of the principal in the initiation and development of ideals in the school through the extra-curriculum program. The greatest responsibility is in the work with teachers. He must outline the ideals which he feels are to be attained in the extra-curriculum field. He should be a keen student of the needs of pupils in his school and then develop these activities and expand them judiciously, and in the choosing of sponsors must exercise good judgment if the various organizations are to develop valuable programs in the school. He must always keep in mind that the school must prepare the individual through the cardinal objectives of edu-

cation for active participation in a "worthy home life, community affairs, and national citizenship," and that if the extra-curriculum program of the school is justifiable it must meet the demands of these objectives.

The principal's place in this scheme is pointed out by Mr. Wilds in the *School Review*, Vol. 25, as follows:

"The supervisor is the keynote to the whole scheme. He must be, beyond everything else, a leader of leaders, with tact, sympathy, and attractive personality. He must be a student of modern aims and purposes in education, with a broad social vision. He must have the faculty of getting down into the lives of boys and girls so that they will trust him and have utmost confidence in his advice. He must be alive to his opportunity of training the pupils for physical, social, moral, and civic—to mold them for well-rounded and useful lives."

Let us first consider a few of the objectives accepted by educators as necessary for an extra-curriculum program. Dr. Briggs says: "That it is the duty of the school to give pupils an opportunity to do better those things they will do anyway and to reveal higher types of activity, to make them desirable and to a certain extent possible."

In the words of Dr. Fretwell it is the duty of the educator to so arrange the educational situation so that pupils will have an opportunity of practising the qualities of the good citizen here and now with results satisfying to themselves.

Accepting these theses it will be necessary for the school to recognize those aims which will develop the qualities of the good citizen, of giving pupils an opportunity of doing better those things that they will do anyway, of improving school discipline and morale, of satisfying the spontaneous interest of the pupils, of developing life interests, of developing worthy uses of leisure time, and of enriching the curriculum.

¹ In any scheme of organization the following principles must govern the administration and supervision of the extra-curriculum program:

- "1. That there is active dominant pupil participation;
- "2. That the program is built upon worthy motives;

¹ Roberts and Draper—*Extra-Curriculum Activities*.

"3. That the purely social is secondary to worthy and purposeful clubs and activities;

"4. That the social program is varied and comprehensive;

"5. That the activities are open to all pupils upon exactly the same basis;

"6. The program has faculty participation and support."

If the activity program of the high school is to be successful it is necessary to set up an organization in which pupils will have a voice in deciding which activities shall be sponsored and what policies shall govern them. If the pupil is taught to be a good citizen in the school he will become a good citizen in the home, church, community, and the state. The school is the practice ground which gives the pupil an opportunity to form these habits and it is habit when combined with ideals which constitutes much of character. Thus, it is the responsibility of the school to assume the training of pupils in the emotional life which furnished the thoughts for true character.

In the next place there are too many activities in the schools to-day that are not worthy of the time and energy which is required to direct them. The need for worthy activities is great. It should ever be kept in mind that worthy activities will stimulate and vitalize the classroom work and that this criteria should determine whether an activity should be added or whether one already on the list should continue. Mere social activities which make no worth while contribution to the school should be barred.

Any study of the needs of high-school pupils will indicate the necessity of adding a wide diversity of activities. Administrators are advocating more and more that every pupil in the school should participate in some activity and that no pupil should take part in too many activities. Hence, every effort should be made to enlist the interest of every pupil in some form of activity.

The fifth principle of having all activities open to all pupils on exactly the same basis is "the very essence of democracy." This principle provides the background of the spirit of fair play, tolerance, and recognition of the rights of others. Teachers and principal must consider very carefully this spirit of fair play if pupils are to acquire the proper respect for the activities program.

The sixth principle, that of faculty participation and support, is very essential. All teachers added to the faculty should be carefully selected with this idea in mind. In order that an activities program may succeed it is necessary to have the hearty coöperation and support of the whole faculty. Roberts and Draper say: "The modern high-school teacher must have a social outlook, a willingness to share responsibility, a disposition to build up the extra-curriculum program even with the certainty of being asked to assume greater burdens, and a desire, unequivocal and outspoken, to help create, foster, and inspire student sentiment."

Problems.—There are many problems connected with the supervision of extra-curriculum activities. Perhaps, the most difficult problem is that of proper interest and sympathy on the part of the faculty. Without proper coöperation on the part of the faculty no program of extra-curriculum activities can be successful.

The problem of interesting pupils in participation is almost as difficult as that of faculty interest. There are so many pupils who would benefit greatly by a well supervised program of extra-curriculum activities. It is the duty of every department in school to make a study of the needs of the pupils in their department and wherever possible to arrange a group along some special line of interest to the pupil.

On the part of small number of the school is the problem of limiting participation. Some pupils are joiners and if given opportunity would join all the clubs in the school. Consequently, some system must be provided which will restrict the participation of pupils in the activities program of the school.

Providing good club programs is one of the pressing problems of the club activities. Programs must be made worth while if the club or organization is to thrive and grow in interest.

Last but not least is the problem of providing the right kind of public opinion. There must be a feeling on the part of the pupils of the school and the parents that the extra-curriculum program is worth while, otherwise there will develop a great deal of opposition and a feeling on the part of the public that the time spent is largely wasted.

The following rules govern participation of students in extra-curriculum activities of Wilmington High School:

1. All of those activities which are not a part of the regular curriculum but are connected with any organization under the supervision of the school are considered as extra-curriculum activities.

2. Each organization must make some definite contribution to the school life, the constitution of the organization indicating the nature of the contribution.

3. Any activity existent in the school must have the approval of the student council and principal before it can be established.

4. The extra-curriculum activity committee shall consist of a faculty chairman and four faculty members, appointed by the principal, and five members from the student body selected by the student council and approved by the principal.

5. The number of activities a pupil may participate in will be determined by the grade of work he is able to do.

6. No pupil shall be permitted to take part in any extra-curriculum activities who has not done passing work in at least three solid subjects carried during the preceding semester.

7. Pupils who fail to do passing work in three solid subjects during any marking period shall be automatically suspended from all extra-curriculum activities for the next six weeks.

8. It shall be the duty of the faculty sponsor of each organization to see that the eligibility of its members is checked and delinquent members notified of their suspension immediately following the closing of the marking period.

9. A pupil may hold no more than three offices during a semester, and only one of these may be the presidency of an organization or the editorship of school publications.

10. Club dues shall be limited to fifty cents a semester.

11. All regular meetings shall be held in the school.

12. All social meetings shall be held at the school except the Senior Prom.

13. Selection of club members shall be as democratic as is consistent with the purpose of the organization.

14. The secretary of each club shall: (a) File a list of members and officers of the club near the beginning of each semester in the office of the director of activities; (b) Notify the director of all additional members taken in during the semester and also notify her of all pupils whose names are dropped from the roll; (c) After each regular meeting file a list of absentees with the director.

15. All money received from any source shall be deposited with the school treasurer and handled according to the regulations governing the school treasurer. Each organization must keep a set of books showing the complete financial records of the club. The school treasurer must issue a monthly statement to the principal of all receipts and expenditures for the month and for the year.

16. The director of extra-curriculum activities shall be *ex-officio* a member of all standing and special committees.

17. No student may hold office who has not passed all work during the preceding semester. If a pupil holding office fails to do passing work for any marking period he shall automatically give up the office.

In order that there may be the fullest participation in the activities of the school it is necessary to have a number of standing committees of the student council who are held responsible by the president of the council for the various tasks assigned. The chairman of each one of these committees should be a member of the council.

Standing Committees.—*Art*, makes posters to advertise events such as class plays, assemblies, etc.

Bulletin, posts important notices and is responsible for the care of the bulletin boards of the school.

Charter Committee, approves the formation of all new activities in the school.

Decoration, decorates for parties and other club affairs.

Dramatic, provides dramatic features for assembly and club entertainments.

Fellowship, welcomes freshmen and new pupils to the school and helps them make new friends. Also, informs eighth grade pupils about to enter high school.

Filing, tabulates and files all data in regard to extra-curriculum activities of the school.

Finance, makes up budget, supervises the spending of money, devises ways and means for making money.

Handbook, edits and publishes the Cherry and White Handbook.

Health, supervises and promotes good health habits.

Look Out, finds neglected opportunities for service to the school and reports to the student council.

Lost and Found, maintains a lost and found bureau.

Lunch Room, devises ways and means for running the cafeteria efficiently.

Music, provides music for assemblies, club programs, and all special events.

Point, places all activities on a point rating distribution.

Publicity, notifies the high-school paper of worth while events, editing a bulletin of outstanding deeds in the school and informs the public through the city papers of the activities of the school, curriculum and extra-curriculum.

School Improvement, initiates and introduces improvements into school world.

Scholarship, promotes better scholarship through competition and other worth while means.

Standards, helps form, raise, and maintain high ideals among the pupils.

Thrift, fosters thrift among the pupils.

Vocational, furnishes material to help pupils choose their life vocations.

The following form is used for placing all responsibility for all school and social affairs.

(This form is to be filled out and submitted to the chairman of the student council advisory committee two weeks prior to date set for the affair.)

Name of group giving affair.....
 Kind of affair.....
 Purpose
 Date Hours
 Place (a) Auditorium.....
 (b) Gymnasium.....
 (c) Cafeteria.....
 Expenses Receipts
 Music
 Decorations
 Refreshments
 Miscellaneous
 Program

Pupil committees in charge

- (1)
 (2)
 (3)
 (4) etc.....

Chaperons:

Name	Address	Phone No.
Teachers.....		
.....		
.....		
.....		
Parents.....		
.....		
.....		

Door keepers:

.....
Chairman of committee

Approved
 Director of Activities Faculty Sponsor

Approved
 Principal

APPLICATION FOR CLUB ORGANIZATION

Date.....

Faculty Sponsor.....

Name of club.....

Purpose.....

Conditions of membership.....

Place of meeting.....

Time of meeting.....

We, the undersigned pupils of Wilmington High School, hereby make application for the organization of.....club

Signature	Class	Home Room
1.		
2.		
3.		
4. etc.....		

.....
Director of Activities

.....
Sponsor

.....
Principal

The following form is used to charter all organizations in the school. This charter is issued by the student council.

A club to be known as.....is hereby chartered an organized body of the Wilmington High School, and is entitled to the privileges outlined in its constitution, subject to the following conditions and rules:

1. A sponsor acceptable to the principal must be selected. This sponsor must be present at all meetings.

2. The purpose of the club is.....

3. All programs and meetings are open to the members of the faculty.

4. No assessments or dues shall be collected from the members, and no bills incurring a debt shall be contracted by the organization without the special permission of the principal. All funds shall be deposited with the school treasurer.

5. The right to revoke or amend this charter is reserved, should the welfare of the school, in the judgment of the principal, render such a step necessary; and the constitution and by-laws of all organizations must conform to the latest provisions, or amendments to the charter of the council.

6. This charter shall be made in duplicate, one copy being placed on file in the office of the principal.

Date.....

.....
Secretary of Council

.....
President of Student Council

.....
Principal of Wilmington High School

.....
President of the Club

The following form is used to obtain the membership and attendance of the member. It is just as essential to keep a record of membership and attendance of activities as of curriculum work.

RECORD OF ORGANIZATION MEMBERSHIP

Name of Organization.....
 Secretary Adviser
 Semester ending.....192....

Names of members	1	2	3	4	5	6	7	8		Offices and Com.	M
.....											
.....											
.....											
.....											

Mark absence A; prepared contribution to the program P; extemporaneous to program E; indicates adviser's estimate of work under M.

The purpose of this form is to give a summary of all the activities of the organization.

RECORD OF ORGANIZATION ACTIVITIES

Name..... Purpose.....

 Semester ending.....192....
 Time of meeting..... Place.....
Adviser

REPORT OF REGULAR MEETINGS

Date	Nature of meeting
.....	
.....	
.....	

REPORT OF OTHER ACTIVITIES

Date	Nature of activity	Time	Place
.....			
.....			

STANDING COMMITTEES

Name of committee	No. of members	Duties
.....		
.....		

QUESTIONNAIRE FOR CLUB SPONSORS

1. Name of club or organization:
 2. Slogan or motto:
 3. Aims or purposes of club or organization:
 4. Time of meeting:

When..... How often.....
 5. Membership:

Boys..... Girls..... Total.....
 6. How are members selected:
 7. Officers:
 8. Committees:
 9. Activities of club:
 10. Give two of the most successful programs of your club:
 11. Suggestions for improvement:
- Sponsor.....

Assembly.—The assembly offers a splendid opportunity of “exploring the school to the school.” The source of material for assembly programs should be the curriculum, the school wide interests, and the community activities. This material should be selected which will be of real value in life outside of the school for the purpose of the assembly and the school is last unless the pupil gets some inspiration which vitalizes life on the outside, so that both the student body and community see that school life is not one thing and community life another, but that they are apart of one complete whole.

The assembly offers a splendid opportunity to give to the pupil an appreciation of the beautiful, the fine things in literature, and the thoughts of great thinkers and through the assembly he has the opportunity to learn to evaluate the finer things of life.

In order that the assembly functions efficiently a complete plan should be formulated by the assembly committee at the beginning of the school year. This plan should take in consideration the number of weeks with special provision for holiday and special day programs. This complete plan will give continuity to programs. Special day programs should be given a regular place in the plan and should have a unity of purpose with other assembly programs.

The success of the assembly depends on the assembly committee. This committee is charged with the entire responsibility of arranging programs, and of providing for proper presentation. The committee includes the director of music, dramatic teacher, and the art teacher and four or five pupils elected by the student association. It is the duty of this committee to require a copy of the program one week in advance of presentation and to see that proper practice is made several days in advance. The music director approves selection and quality of presentation of all musical numbers, the dramatic teacher of all speaking parts and the art teacher of any decoration necessary. This insures proper preparation on the part of all concerned.

It is the opinion of the speaker that the assembly offers a real educational opportunity for the progressive principal. If the programs are of such a nature as to bridge school life with life outside of the school and compel public interest, if there is a unity of purpose for the entire year that provides well balanced programs, if the plan is so administered that initiative and responsibility will rest with the student body but under the direct leadership of the sponsor and if

thorough preparation for the presentation of the program is made, we can rest assured that the assembly will make a valuable contribution to the life of the school.

The following form is prepared by the chairman of assembly committee after each assembly:

REPORT OF CHAIRMAN OF COMMITTEE ON ASSEMBLIES

Date.....

Name of organization in charge of assembly.....

Purpose of assembly.....

Presiding officer..... Office.....

Give program

.....

.....

.....

etc.....

Notable accomplishments

.....

Please check any of the following tests which you believe the assembly contributed:

1. Was it interesting to the pupils.....
2. Were there real benefits accruing to pupils from the satisfaction of participation.....
3. Did the assembly explore the curricular or extra-curricular activities to the school.....
4. Did the program tend to promote the right kind of school spirit and morale.....

Criticisms:

Suggestions:

.....

Chairman Assembly Committee

Home Room.—Recognizing as we do the important part that the home plays in the life of the school it is very essential that there be close supervision of the home room programs. The guidance committee of the school can be of very great assistance to the home room teacher. The home room provides a pupil responsibility to the teacher. Many schools are doing a fine piece of work in their guidance program through the home room. The following form has proven very helpful in supervision of the home room work.

The following form is required of all home room teachers at the close of the semester.

1. (a) Extra-curriculum activities represented in my home room and number participating in each.

Activity	Number
.....	
.....	
.....	

- (b) Total number of different pupils in your home room who have actively participated in one or more extra-curriculum activities this semester.

2. Offices of school leadership held by members of my home room.

Activity	Number
.....	
.....	
.....	

3. Devices used in home room to develop reliability, initiative, obedience, self-control, and judgment.

- (a).....
 - (b).....
 - (c).....

4. (a) Standing committees found most valuable in carrying out purposes of home room.

1.....	2.....	3.....
4.....	5.....	6.....

- (b) Special committees used this semester

.....		
.....		

5. Number of pupils who have been members of one or more of the above committees

6. Methods used in guiding each committee as the members formulated their purposes and evaluated their achievements.

(a).....

(b).....

(c).....

(d).....

7. Number of pupils with whose home conditions I am fairly well acquainted.

8. Methods I have found most successful in securing the understanding, sympathy, and coöperation of the home.

(a).....

(b).....

(c).....

9. My general estimate of my home room work this semester based on original purposes, problems encountered and solutions, and general results obtained.

.....

.....

.....

Extra-Curriculum Finance.—A study of the handling of financial matters in the high schools of this country indicate that there are many systems in use. In any system using good business methods the following basic principle must be observed:

1. The preparation of a carefully prepared budget.
2. The budget committee consisting of representatives from school board, faculty, and pupils.
3. A system for the receipts and disbursements of all funds.
4. An adequate bookkeeping system in which the pupils have a part.
5. Monthly statement by the treasurer.
6. Audits of the accounts under the supervision of the board of education.
7. Adequate forms for the administration of the funds.

In any system of finance it must be kept in mind that pupils should be taught that the correct and prompt accounting of all financial matters is essential in life and business, that pupils should be given an opportunity to practice this phase of citizenship. Pupils must be given as much responsibility as they are able to assume. The system, to be successful, must have the whole-hearted support of the student body and must be designed to meet the needs of the particular school.

The following method is an approved method and is used in a large number of schools.

A school treasurer is appointed by the principal and wherever possible should be the head of the commercial department or someone from his department. This affords a splendid opportunity for boys and girls to receive training in the handling of funds and accounting. He is properly bonded so as to insure against loss.

Each club or organization has its fund deposited with the treasurer. This is deposited in bank in one general fund. Deposit slips are made in duplicate to prevent any mistakes. Each club or organization handles its own finances but must contain the signatures of sponsor and treasurer of activity. Withdrawal slips are handled in the same way. No order to pay is bona fide without signature of sponsor and treasurer of the organization.

All monies collected by admission is in charge of a faculty representative who requires a strict accounting of all tickets sold. This

representative in turn deposits the money to the credit of the activity giving the affair.

At the end of each calendar month the school treasurer issues a statement of the receipts and expenditures of all activities in the school and the total amount of money remaining to each organization and in the general fund. The treasurer of each activity is required to bring his books to the treasurer for auditing to insure against any mistakes and to teach pupils efficiency and accuracy in the handling of money.

The following forms are necessary in the administration of the finances:

- (1) Deposit slip
- (2) Order blank
- (3) Blanks for financial reports of admission to games, plays, etc.
- (4) Monthly report of treasurer for all activities.

ATHLETICS

REPORT OF ATHLETIC MANAGER

Report of manager of team
 of the game played between and
 Wilmington High School at
 on 192...

RECEIPTS

Advance Sale	
Gate	
Guarantee from opponents	
Incidentals (Itemize)	
Total	\$.....

EXPENDITURES

Transportation \$
 Meals
 Officials (name)

 Guarantee to visiting teams
 Police
 Incidentals
 Profit or loss on game

Signed.....

Manager

Approved

Athletic Director

FINANCIAL

REPORT OF TREASURER

For month ending..... 192...

No.	Organization	Overdrawn	Expenditures	Receipts	On hand
1	Athletics.....				
2	Whisp.....				
3	W. H. S. News.....				
4	Nat. Honor Soc.....				
5	Book and Quill.....				
6	Etc.....				
	Totals				

Balance of cash in bank \$.....

Treasurer

The following checking list is suggested by Foster and seems to offer an opportunity for the sponsor and director of extra-curriculum to evaluate the work of the various activities in the school.

1. *Motivation*
 - (a) Why do pupils participate?
 - (b) Is their objective that for which the activity is designed?
 - (c) Are they attaining that objective?
2. *Educational Objectives*
 - (a) Are all the seven objectives being realized for all the pupils by means of the objectives?
3. *Distribution of Activity*
 - (a) Are all participating in activities, or merely onlookers?
 - (b) Are a few doing all the work or receiving all the benefit?
 - (c) Are the activities of every pupil well balanced?
4. *Balance*
 - (a) Are the various activities occupying too large or too small a place in the lives of the pupils, individually or as groups?
5. *Habit forming*
 - (a) What habits are being set up by the activities or in them?
6. *Integration*
 - (a) Do the activities conduce to a democratic social solidarity in the school?
7. *Suggestions*

Principal Harold A. Ferguson of the High School of Montclair, New Jersey, read his paper, entitled, *Educational Guidance as Supervision*.

EDUCATIONAL GUIDANCE AS SUPERVISION

HAROLD A. FERGUSON

PRINCIPAL, MONTCLAIR SENIOR HIGH SCHOOL, MONTCLAIR, N. J.

A new conception of the responsibility of the secondary school has accompanied the increased school enrollment of recent years. With this growth has come a variety of types among pupils, as well as a complexity of pupil aims. Educational guidance, a comparatively recent development, has, therefore, become an accepted practice in schools which desire to accept their greater responsibility.

To conceive of educational guidance as supervision, it is necessary to understand what is meant by educational guidance. No doubt, the guidance technique is familiar to many, but briefly, it assumes the form of information and advice to pupils, careful checking, diagnosis, prognosis, adjustment, and remedial treatment. Expressed in other words, the school considers each pupil as an individual to the extent that it is possible for him either to realize his aims, or to be assisted to the point where he may formulate desirable aims. Thus the school is interested in the success of its pupils, not only in theory, but actually to the extent that school adjustments are made to fit the needs of boys and girls. This is supervision—a type of supervision which determines whether the school actually is functioning day by day in the lives of its pupils.

Guidance in the past was limited to the scattered efforts of certain teachers who wished to express an interest in individual pupils. The idea of going so far as to fit the school to the needs of the pupils was regarded as "soft pedagogy." Considering the number of choices which pupils needed to make in the selection of subjects and in the formulation of aims, educational guidance as a school policy was not very much in evidence. I wonder how many recall the letters sent home to parents of pupils who either had failed, or were in danger of failing, in which requests were made for the parent or pupil to remedy the defect. Should the parent question the school's responsibility in such cases, he was in grave danger of being regarded by the school as unreasonable.

The plan of educational guidance in operation in the Montclair Senior High School, Montclair, New Jersey is only suggestive. It has been developed because the community expects, and is willing to support a high school which deals with pupils as individuals. The size of classes for this year would emphasize this fact.

The percentage of classes.....	20 or less is	46
The percentage of classes.....	25 or less is	80
The percentage of classes.....	over 25 is	20
	1 class is over	30

Guidance is made possible by the collection of information for pupils and about pupils. The achievement of individuals is compared with their stated objectives. Occasionally extreme cases, not large in number, are studied to the extent of referring them to the psycholog-

ical clinic. In the main, however, contacts are made with the home, and foresight, and anticipation of difficulty are exercised to prevent rather than to cure. Surely a school can more easily justify its action if it has attempted to anticipate situations by dealing with them in the light of available evidence than it can if it adheres to the policy of telling parents what has happened after the "patient has died."

Certain features of the plan include:

(1) A comprehensive system of grouping pupils based upon pupil achievement or pupil objectives.

(2) A system of clearance through and deliberation with the principal and his staff,

(3) A close relationship between the home and the school,

(4) An attitude on the part of the school that a failure of the pupil may be to some extent a failure of the school.

In this last connection, meaningless and incorrect reasons for failure such as "failure to pay attention," "laziness," "no language sense," are replaced by constructive suggestions for improvement after an attempt has been made to analyze the difficulty.

A brief description of the duties of the various advisers in the Montclair High School is given for the purpose of indicating the extent to which responsibility for dealing with the individual pupil is delegated.

The contact with each pupil is made by three different groups of advisers. These are: the home-room teachers, the class advisers, and the advisers in the field of pupil objectives. To make information available for these various groups of advisers, which will prevent overlapping, duplication, or working at cross purposes, a folder for each pupil is kept in the main office. Clearance is also made by the various staff members through the Dean of Girls, or through the Assistant Principal, or Dean of Boys, who, when necessary, finally clear through the Principal. The Principal, of course, in theory maintains an individual contact with every boy or girl in his school.

The first group of advisers, the home-room teachers of the school, are responsible for the pupil's attendance and excuses, and his assimilation into the life of the school. Certain school considerations are

taken up in home rooms. His record of scholastic achievement and his citizenship record are matters of the friendly concern of this teacher. The element of friendliness is emphasized in this connection to avoid the danger of having too many who may be regarded by the pupil as "dogging" his steps. Such a reaction on the part of the pupil might easily do more harm than good. As many know, this effective home-room influence is difficult to cultivate. Despite this fact, however, there are many educators who emphasize the importance of the home room in a guidance program. The danger of attempting to train and use all of the home-room teachers in the school as advisers lies in the fact that while the school is training its home-room teachers to become effective advisers, some pupils are being overlooked. There is another fact to be considered by those who favor the home-room teacher as the vital point in guidance work. Teachers differ markedly in their abilities to deal with pupils' problems. To some the work is interesting; others prefer to subordinate it to other types of work. Guidance work, however, is too important and necessary to be left to the discretion, or to compete with the interests of a large number of teachers. Therefore, the policy in this school favors a comparatively small number of specialists.

Upon another basis, that of class organization, the Dean of Girls and the Assistant Principal assume among their other duties, the specific responsibility of acting as advisers to the sophomores, that is, first-year boys and girls, in the senior high school. This is a key point because of the importance of "bridging the gap" between the junior and senior schools. These advisers aim to become acquainted with these pupils even before they complete their ninth year. Understanding and sympathy are necessary at this point. The wise choices which need to be made are guided by sufficient information and advice. Achievement is carefully watched, and adjustments and the proper understanding of individual cases brought about.

Two members of the faculty, a man and woman, assume the responsibility for the juniors. They act as assistants to the Dean of Boys and the Dean of Girls, making an individual contact with members of this class. The members of this group might be easily overlooked as the importance of the sophomores with their adjustment problems, and of the seniors aiming for graduation, is considered. These advisers check achievement, warn the home, confer with par-

ents, express approval wherever possible, and make recommendations for cases which need the special consideration of the Dean of Boys or the Dean of Girls.

The Principal regards the seniors as his particular concern, and he, above all others, should be acquainted with all matters which concern a group over whom is impending such a vital matter as graduation. Any principal who allows boys and girls to come within a few weeks or a few days of graduation and who does not feel confident at that time that he knows the cases which are doubtful, and that adequate and timely warning has been sent to the home, deserves all of the bitter criticism which he is bound to receive from parents, friends, and the community. Wherever pupils have gone along with the assumption that they are being prepared to meet specific demands or requirements, entrance to the senior year should, as far as possible, find them definitely understanding that they may reasonably expect to realize their aims or they should know to what extent there is doubt in this direction.

The third basis for dealing with these pupils is the objective of the pupil. A member of the staff gives full time to the work of college adviser. She is the adviser for all pupils who are planning to attend college. This means in this school approximately six hundred pupils, and in a section of the country where college requirements are specific and differ from college to college, this is an extremely important type of work. Too many times the high school's success is measured by this alone. Some may think that this is unfair, but whether or not the objective is as worthy as it might be, a high school is extremely unwise which does not take into account what is demanded of it. Either pupils should be prepared to meet these college requirements or intelligent and timely reasons should be given for the school's inability to prepare certain pupils for particular colleges. This College Adviser secures the college choices of pupils. From experience she knows what subjects year by year should be carried by pupils who are planning to go to certain types of colleges. Wherever there is indecision, she confers with the Deans of Boys and Girls and the home on the selection of subjects, in the light of these various judgments. Achievement is checked and is compared with the choice of college. The home is kept informed if there seems to be a tendency to fall below a certain standard of achievement. This Adviser discusses with the Deans and with the Principal cases where a

change should be made in college choice. In addition to guiding and advising, this Adviser's office cares for college entrance applications. In itself, this is no small task, last year 644 application blanks having been filled from this office for college entrants. There is also the necessity for follow-up work. College freshmen records are secured and regarded either as a checkup on the school or as an appraisal of the college. In addition to having these duties, this Adviser is, of course, the source of all catalogue information which is available about college entrance.

The pupils interested along commercial, fine or practical arts lines are delegated to other faculty members who are specialists along these lines. Comparatively little scholastic achievement has, thus far, been checked by these advisers. Of course, they are able to give a considerable amount of vocational information, as well as to advise with the Deans of Boys and Girls when vocational information is sought.

Such an organization, with the necessary clerical force, means more overhead expense than some communities are willing to support. It hardly seems more than necessary, however, if each pupil is to be handled as an individual. In fact, there are schools in our country, privately endowed and used more or less as experimental schools, which have gone even farther in the matter of providing an adequate advisory staff. How can principals be the human engineers we expect if they allow themselves to become buried with routine work? If school principals prefer to avoid and attempt to solve problems, routine work is easier to understand, although much less interesting. The school attitude which regards pupils as types, or one of many, or, as an I. Q., means a similar type of supervisory work. Communities, however, should be, and in many instances are, more interested in supporting schools which actually function in the lives of pupils.

As one stops to consider the problems and the types of information which might be discovered as a group of advisers works with a thousand pupils, it is possible to think of the supervision of the principal and his department heads as being motivated by the many challenges to more effective teaching and understanding of individual pupils. As teachers motivate their instruction, we know that the learners' interests are aroused. So may supervisors make challeng-

ing to teachers the problems which are encountered. Teachers may not always solve individual pupil problems, but in trying to do so they undoubtedly will grow. This growth may be greatly assisted by the principal and his staff, who should be able to furnish information about cases which may help the teachers to solve particular problems. Thus the teachers may be stimulated to greater achievement.

Possibly a consideration of the actual attempts of such a group of advisers to deal with familiar phases of high-school work will not only emphasize their guidance functions, but will further stress the possibilities of such a program of supervision. Every high-school principal will, no doubt, recognize in the following eight problems the possibilities for guidance and supervision.

1. Junior-senior high-school articulation.
2. Pupil selection of subjects in the senior high school.
3. Checkup of achievement and contact with the home.
4. Recognition of success.
5. Preparation for college.
6. Specific subject difficulties.
7. Participation in extra-classroom activities.
8. Maladjustment among pupils.

1. *Junior-Senior High School Articulation.*—This problem has been regarded as sufficiently important to receive consideration in a recent study by a Commission of the Department of Superintendents of the N. E. A., headed by Dr. Weet of Rochester. Inasmuch as the major portion of the responsibility for bridging the ninth and tenth years should rest with the senior high school, definite steps are outlined by the high-school principal to handle the difficulty. Adjustment problems may be manifold. They may be personal, social, scholastic, economic, traditional, and professional, in character. The principal and his dean of girls, dean of boys, and other advisers, can do much. Information is made available, both printed and spoken, to make as clear as possible what is advised in the light of objectives. Conferences are held with groups of pupils and parents before, as well as after, promotion. Anticipated difficulties are guarded against, and this fact reduces, in number, pupils who become discouraged. If no other result were obtained, reducing the number of discouraged pupils repays this senior high school for the exercise of such foresight.

2. *Guiding Senior High-School Pupils in the Selection of Subjects.*—"I did not know" is a common complaint of the parent and the pupil. Although, at times, it seems impossible for pupils to fail to know, or for them to misunderstand, to remedy this complaint, printed information is, of course, helpful and necessary. The school, however, in addition supplements this with personal and group conferences. Placing this responsibility in the hands of the home-room teacher alone, is ineffectual. Therefore, three or four times during the year, and especially just before choices are to be made for the following term, or year, pupils meet in groups, or singly, with advisers who can give information and guidance. Too much responsibility may still be placed upon the pupil and the home unless the school goes one step farther. This step involves a careful checking of every pupil's plan of work by advisers who know more about his case than any one else. Parents may disagree with the advice which is given by the school, but at least the school has tried to function by giving professional advice. Schools should try to avoid the attitude of dictating in such cases, because parents who disagree with the school have been known to be right. Once again, then, the aim of the school is to prevent difficulty from arising because of lack of information or guidance, and to avoid the tendency to place responsibility for pupils' choices upon ill-informed, misinformed, or uninformed pupils and parents.

3. *Checking Achievement and Informing the Home.*—Many private schools make a point of sending frequent reports on achievement to parents. Public schools are apt to decide upon some system which may be administered with greater ease. Large schools, of course, are limited by their numbers in attempting what might mean far too much clerical work, and therefore, do not have much choice in the matter. It is probably true also that too frequent reports often may cause the pupil to lean too heavily upon the teacher. This conclusion would seem to be borne out by college statements about the greater responsibility shown by public school pupils as compared with private school pupils in college. Nevertheless, this school recognizes the necessity for supplementing report cards in many cases with additional information, taking particular care to warn failures. Patrons appreciate the extra service as a desire on the part of the school to assist the home or to secure the assistance of the home. Such a practice cannot be left to the discretion of individual teachers

because some will be overzealous in this respect and others will allow other duties to crowd out the important work. There is also an added benefit which comes to the school in that teachers are assisted in the better understanding of cases as they put into words intelligent reasons for failure, in addition to constructive suggestions for improvement.

4. *Recognition of Success.*—The success of an advisory system is enhanced if it takes the recognition of success just as much into consideration as it does the concern about failure. Pupils who are not failing may need more attention, at times, than pupils who are failing. Letters or expressions of approval from the principal, or his advisory staff, to those who are doing work worthy of recognition are mutually stimulating. Quite as important, the traditional belief that a trip to the office is an unpleasant experience, may be somewhat undermined.

5. *Preparation for College.*—Pupils who are planning to go to college need considerable guidance. Many possibilities for the school's advice must be apparent along this line. Should the pupil go or should he not go to college? What college should he attend? What subjects should he select? How well is he getting along? Can he enter the college of his choice? How many college selections should he make should he be refused by one? In accepting this responsibility, and it must be accepted in many places, a school has no defense if it fails either to guide the pupil so that he succeeds in attaining his objective, or to warn the home that the objective is doubtful. Guidance in this direction goes so far sometimes as to map out for a pupil his entire high-school program, year by year, three or four years in advance. Of course, it is admitted that the realization of college aims many times assumes false proportions. Failure sometimes is the fault of the pupil. Then there are cases where the parent's ambition for the pupil to attend college is not reinforced by a similar ambition on the part of the son or daughter. The school, however, tries to leave no stone unturned in making sure that it in no way has failed.

6. *Specific Subject Difficulties.*—Failure, instead of having any beneficial effect upon a pupil, far more often results in discouragement. Schools should question their own judgments more often as they allow pupils to select certain types of work. Certainly, wherever the evidence in a pupil's record indicates doubt, the school either

by means of special grouping, or by advising against continuing with certain subjects, may guard against continued failure. Cases where high-school pupils repeat subjects three and four times are not unusual in some schools. These pupils, as a result, are branded, many times permanently. The time will come, if it has not already arrived, when such cases will be used as a basis for indicting the school rather than the pupil.

7. *Participation in Extra-Classroom Activities.*—The school's responsibility here is to regulate. Some pupils need encouragement in this direction; the natural tendencies of others need to be curbed. Free and unlimited selection, without any guidance or control, may defeat the very purpose for which the school is maintained.

8. *Maladjustment Among Pupils.*—If individual cases are approached by advisers with the attitude that needed corrections may result in proper adjustment, the situation is hopeful. There may or may not be the question of failure involved. More often, of course, failures attract attention. Lack of adjustment, at times is personal. To know when and how far to go in the attempt to adjust pupil-teacher personalities is almost omniscience. There are times when actual adjustment is necessary and the problem of inducing teachers to regard such cases impersonally is difficult. Wooden, "yard-stick" rules, however, in such cases do not work. The policy of never making changes cannot be defended, and if it is humanly possible, the principal must consider the welfare of every pupil and at the same time retain the confidence of his teachers. Maladjustment is by no means always a matter of personal relations, however. Physical and health considerations are numerous. Home conditions, probably more than any other reason, are responsible for the school difficulties of pupils. On the other hand, the most commonly assumed cause of low-grade school work, the lack of effort on the part of the pupil, dwindles in importance as actual reasons for difficulty are understood. It is true that some pupils do not exert themselves. The far greater number of those who seemingly are not trying, however, when the reasons become known, many times are doing better than one would expect under the circumstances.

The program of guidance which has been thus far described may be regarded by some as a plan which would exaggerate the school's responsibility and would correspondingly minimize the importance of

pupil responsibility and initiative. If such were actually the case, it would indeed be unfortunate! However, are we not too many times concerned about the dangers of making the pathway of pupils too easy? Over a period of years, the tendency has been in the direction of an intelligent and sympathetic understanding of pupils. Thus, in its relations with boys and girls, is there any good reason why the school's function should be regarded as that of the cold, harsh, disinterested judge?

It is possible also that the program which has been described may be understood to be wholly administrative in character. Of course, it has administrative functions, but its chief purpose is supervisory, not only to improve the teaching but to control as far as possible, conditions which affect each pupil's learning, as well as his attitude toward his school. Methods of supervision, such as, class visitation, teacher conferences, demonstration lessons, the professional literature, faculty meetings, departmental meetings, and the results of special studies must continue. In addition to this limited conception of supervision, however, we must endeavor to impress upon teachers and pupils a spirit and an attitude. The spirit of teachers should be to accept difficulties as professional challenges. The attitude of the pupils, it is hoped, will be to regard schools as places of opportunity where with the help of the school, and the necessary effort, boys and girls may attain objectives and realize ambitions. This requires a type of supervision which not only deals with teaching and learning, but also takes into account pupil adjustment.

J. Will French read his paper, *The Function of the Principal in the Organization of Supervision*.

THE FUNCTION OF THE PRINCIPAL IN THE ORGANIZATION OF SUPERVISION

WILL FRENCH,

PRINCIPAL, HIGH SCHOOL, LINCOLN, NEBRASKA

The wording of this topic makes two assumptions of significance to this group. The first assumption is that the principal *has* a function in connection with supervision; that supervision of instruction is at least a phase of his increasingly complicated task. The second

assumption is that a complete, though not necessarily elaborate, organization must be built up within a school if the task is to be efficiently done. That is to say, supervision has become more than a personal relationship between a principal teacher and three or four other teachers in that school.

Since every writer and professor in education in a generation has insisted that the chief duty of a principal is the supervision of instruction the first assumption might seem obvious did not studies of the work of the principal show that a minor rather than a major fraction of his time is devoted to this task.

A recent study by Feelhauer* covering 144 principals of high schools in Nebraska, shows that while principals in the high schools of over five hundred are averaging thirty per cent of their time to supervision, yet for the group as a whole the percentage of time devoted to supervision is negligible, since in the small schools which constitute all but four schools of the state, the principal is chiefly a teacher, clerk and director of extra-curriculum affairs. Roberts and Draper, in *High-School Principal as Administrator* (p. 31), in reporting a study of 450 principals find only seventy-eight reporting over twenty-five per cent of their time devoted to supervision while 260 give twenty-five per cent or less.

Apparently though in theory most members of the profession approve the idea of supervision of instruction as a major activity, in practice they allow for it or are compelled to assign to it but a small portion of their time and energy. The range of practice runs from those holding supervision to be a major responsibility and who therefore set aside a major fraction of their time for it down to those who devote little or no time to it. The picture is still further complicated by reason of the fact that this last group is again divided into two subgroups. The members of one subgroup admit that supervision is a major responsibility and claim that but for the press of administrative work, the lack of sufficient assistance, and a shortage of clerical help, they would be found devoting a major share of their time and interest to it. The other subgroup points to the range of subject matter now taught and to the special subject supervisors from the superintendent's office as sufficient justification for doing little or

*Feelhauer, C. T., *The Duties of High School Principals in the State of Nebraska*, School Review, March 1927.

nothing about supervision. As a whole principals are spending too little time in supervising.

It may be argued that these studies of how principals spend their time are unfair in their conclusions because to determine the opinions of principals with respect to the importance of supervision one needs to measure more than time spent. Interest, organization, and superior technique may enable one who spends but little time in supervision to accomplish more than he who spends hours at it. While the justice of this criticism may prompt us to credit the principals with rating supervision higher than the time spent thereon might seem to justify, yet the well known tendency for one filling out a questionnaire of this kind to be rather generous with himself in estimating the time spent upon an activity which he knows he should spend more, coupled with the use of an all inclusive definition of the term supervision whereby one may conscientiously include activities only very remotely connected with this process leads one to the belief that after all the conclusion that principals do not live up to their responsibilities as supervisors is well founded.

If it is true that the principalship is giving too much emphasis to its administrative activities in comparison to its supervisory responsibilities it may be claimed that in so doing it is but going through the same evolutionary stages as has the school superintendency and from the same causes. Increased school enrollments, elaborated educational programs, complicated fiscal problems and expanded school plants are said to have made the city school superintendent a "mere" administrative officer. The modern city high-school plant with its large pupil population living in congested school quarters, the size of its budget, the variety of its activities and subject offerings all now duplicate in a single school the conditions prevailing in a whole city system at about that period in American education when the city superintendent began to discover that his administrative responsibilities were leaving less and less time for supervision. Must the principalship also become a mere administrative office?

It would be most unfortunate for secondary education as well as for our profession were we forced to answer this question in the affirmative. There is little future to the principalship if it should become a purely administrative position. Caught between the administrative forces of the superintendent's office, the influence of

faculty members and with supervisors on one hand and department heads on the other, the administrative principal becomes a cross between a policeman, a head janitor and an errand boy, truly the "glorified office boy" referred to by Barr and Burton. The future of the profession lies in being a powerful factor in carrying on and improving instruction. If we relinquish leadership here to others they logically gain the right to nominate teachers. Only by retaining leadership here, by giving direction in the difficult process of supervision and by shaping the development of the curriculum can the principalship retain that position of respect and influence we all hope to command.

Moreover instruction in secondary education needs the unifying influence of supervision by the principal. It is already too departmentalized by reason of highly specialized teachers with intense subject-matter prejudices. Special subject supervisors usually magnify the divisions. The principal, who in most cases was snatched from the classroom at too tender an age to be a thorough-going subject-matter specialist, can bring a breadth of view, a unity of perception seldom vouchsafed to one highly trained in any specialized subject-matter field. So from points of view of the profession and of secondary education the principal must be a moving factor in supervision.

And the second assumption underlying this topic shows the way out for the principal of a city high school who can do an effective piece of work in supervision in a large school only by a carefully conceived program of supervision skillfully administered. The modern principal who, under the stress of administrative problems, community activities and civic duties, undertakes to supervise instruction in his school personally after the manner of the principal teacher in the high school of a half-dozen teachers will either spread his influence out too thin to be of much power or will fail because of neglect of everything else. The modern principal who is an administrator not only in the field of building operation and management of pupil organization and of budget problems, but also in that far more important field of supervision of instruction is the successful large city high-school principal. As he sees his administrative work in relation to his major duties and is not lost in a maze of small office details, he succeeds. In the end then the better administrator he is the quicker will he see the need of an effective organization for the supervision of instruction.

In the judgment of the writer some principals who are having difficulties with supervision are so troubled because, having left a small high school to enter a larger one in which both the number of teachers involved and the increase in administrative work makes the small school personal supervision impossible, they have not developed an adequate supervisory organization to discharge this responsibility effectively. They fail in supervision, then, curiously not because they are poor supervisors, but because they are poor administrators. One of the high priests of secondary education says, "A principal doesn't get paid for what he does but for what he can get others to do." If the principal has a real mountain top vision of his work he will see all phases of his work spread out around him and will delegate, supervise, and check up results in the field of supervision as well as in the more administrative aspects of his task. To use the language of the military he will deploy his forces all along the line, some on extra-curriculum activities, some along the edge of the curriculum and some on supervision, holding himself in reserve to throw his force to whatever sector needs the reinforcement of his presence, only hoping that he won't be needed in more than two places at once. After a winter of such strenuous campaigning even a principal is ready for a quiet summer school rest camp where he can take a couple of major courses in high-school administration for recreation.

The sector of supervision in the large high school deserves adequate and well balanced personnel. Good work in this field calls for three groups of workers each with different responsibilities and points of view. The first group consists of the principal and his assistants, the second the workers of the research department and the third the heads of departments and supervisors. These three working together can institute an effective piece of supervision.

The principal and his assistants constitute the unifying, centralizing and coördinating force of which the principal himself must be the vitalizing center. Once let others in a school feel that a supervisory organization has been built up to take a disagreeable minor task off of the principal's hands and the whole program falls flat at once. If the organization feels the stimulation of his active interest, if it commands a fair share of his time and attention and knows that having delegated responsibility his check on results is inevitable it will push forward to real achievement. The attitude of the principal is everything. The assistant principals can lend an element of strength

because they come in close contact with teachers and pupils and know and understand the desires and needs of both. They can be asked to pay particular attention to departments of the school or aspects of the curriculum in which they have special ability or interest and thus double or triple the time, thought and attention which the principal's office can give to supervision.

The research worker is a necessary adjunct to any efficient program of supervision. Supervision has ceased to be an impressionistic art. Some aspects are objective and certainly results of instruction can be ascertained, measured and compared. The principal interested in organizing a program of supervision will want to include a provision for such study as a research worker can make. This does not necessarily mean a special full time department assigned to each high school in a city, although good use could doubtless be made of such a department. If the city school system has a research bureau centralized in the superintendent's office sufficient time can be allotted to a high school to accomplish necessary results. The assignment of such a worker to a high school, however, makes the service more immediately available and generally increases the amount of time and interest.

Two types of studies of service in a supervisory program may be expected from the research worker. The first type has to do with the status, present and past, of the pupil group. The usual figures of growth, composition, distribution, withdrawal, age-grade progress and failure give a principal a good base line from which to begin making calculations. In addition to these figures on the whole group of students individual records of achievement, intelligence, grade placement and aptitudes for each entering student are needed. A convenient form for these records is the profile card which not only assembles all these measures on one card but puts them into such form as to be easily interpreted by classroom teachers.

The second type of study is concerned with the measurement of current results of teaching, the giving of standard tests, making and giving of locally constructed tests, determination of achievement at different grade levels and diagnosing weaknesses and difficulties in both teaching and learning. Such figures furnish the school with a continuing check upon the results of instruction as well as records of results of any special experiment in teaching which any department

may carry on. Without studies of these two types a supervisory program starts from no place in particular, has little idea of a desirable destination and no measure whatever of its rate of progress toward its destination. The research element is therefore an essential element in any carefully conceived program of supervision.

The third group involved in such a program is the group of department heads and supervisors. From this point on in this paper the special supervisors are not specifically mentioned since they are commonly staff officers and as such do not belong to a high-school faculty and therefore cannot be incorporated into the supervisory organization of a single school. They are, however, to be regarded as special service group to be used by the supervisory organization. If there are to be department heads their work besides teaching should be largely supervisory. The work of the head of a department varies sharply from school to school and even within schools. City School Circular No. 10, U. S. Bureau of Education, November 1928, with data from the principals of 124 schools of over 1,000 pupils shows that in such schools department heads teach a median number of four periods per day. Ninety-eight of these schools which give a distribution of the time of department heads between teaching and supervision and clerical work show a wide range of practice but indicate clearly that department heads teach from sixty to eighty per cent of the time, supervise from twenty to forty per cent of the time and do clerical work from zero to twenty per cent of the time. The time for administration should be curtailed to provide more time for supervision.

A most comprehensive study of the work of the department head begun a year ago by Dr. H. C. Koch, Professor of Secondary Education in the Teachers College of the University of Nebraska is as yet unpublished, but through the kindness of Dr. Koch I am permitted to use certain parts that have a bearing on the question of supervision by department heads. Dr. Koch's study covers high schools in thirty-five states and includes replies from over a thousand department heads. When 822 of these answer the question, "Do you supervise instruction in your department," eighty-four per cent answer "yes" and sixteen per cent answer "no." Approximately fifty per cent of these have one period free per day, twenty-five per cent more have two periods while the other twenty-five per cent have from three to eight periods inclusive, for other activities than teaching. When asked

what they do when they supervise they specify in order of rank: (1) Conduct departmental meetings; (2) Hold conferences with individual teachers; (3) Refer teachers to helpful material; (4) Visit classes; (5) Conduct coöperative experiments; (6) Coöperative collection of helpful literature; (7) Visit classes outside of their department; and (8) Conduct demonstration teaching, with a host of other supervisory activities receiving a scattering vote.

A brief glance at these figures of Dr. Koch's shows that whatever the local variations in the work of department heads may be, they are now playing an influential part in supervision. Whether the principals are giving enough coördinating direction to these efforts to make them fruitful of maximum results is open to question. It is safe to say that without the supporting influence, prestige, and ability of the department head group no program of supervision in any school can succeed, and notwithstanding that department heads as the older teachers in the school both in experience and tenure are likely to be somewhat traditional in viewpoint and deeply steeped in their particular subjects yet here at the same time in most schools is a most capable, well trained group of teachers quick to sense leadership from the principal's office and capable of interpreting a program of supervisory activities to the teachers in each department as no one else can. In the experience of the writer it can be said that one may count upon the support of department heads in any effort that promises improvement in instruction and a principal can make no more serious mistake than to fail to organize their willingness and ability into a unified, coördinated program.

If as Dr. Koch's study shows, eighty-four per cent of department heads are supervising and when doing so engage chiefly in activities as listed above, the coördinating influence of a principal is certainly needed. If five to fifteen department heads in their capacity of supervisors in any school are holding department meetings, conferring with individual teachers, conducting coöperative experiments and visiting classes both within and without their own departments without such guidance from some central point, then from five to fifteen different schools of thought are being formed all under the same roof on problems of method, curriculum, psychology, and philosophy. Divergence of thought and action in these four fundamental fields is doing more in many schools—in fact in secondary education—to

retard and hamper the development of modern school programs than is any one other factor.

Department heads may reasonably expect the principal of a school to outline in meetings of department heads a program of emphasis on certain major supervisory points of view, to urge a large degree of acceptance of the program and send them into their departmental meetings with a knowledge that in every department of the school that problem is being attacked with the purpose of achieving certain previously accepted objectives. A program of this type can work wonders toward unifying the thinking of a faculty around strategic points and in breaking through that stagnant mire of inaction which is the inevitable result where departments retain the traditional policy of "splendid isolation." Meetings of departments for consideration of supervision will thus accomplish more if the principal is setting a pattern for the school.

The conduct of coöperative experiments at the instance of a single department without careful study on the part of the principal and without the expert aid of the research worker are but sporadic, ill conceived efforts which often lead to needless duplication of work done by others. Not that the department head lacks ability to direct such experimentation, but that experiments in supervision to be a maximum value in a school must be the next logical step in the supervisory program—laying a sound basis for future developments, be observed by other departments and the results used by other departments. So also then may the coöperative experiments which department heads say they are conducting as an important phase of their supervisory work be more often a power for good if the principal is doing his part in directing the supervisory program of a school.

Another of the most frequently mentioned supervisory activities of department heads, visiting of classes to observe teaching, is an activity, if it may be so styled, which often degenerates into a desultory process of time killing unless there is a real purpose in it known alike to teacher and supervisor. Merely to visit each teacher in the department once a semester that it may be recorded in the soon deeply buried records of the superintendent's office that each teacher was duly visited is a practice as common to the profession as it is unworthy of it. Observation of instruction through visits to classrooms ought to grow out of the school's program for improving instruction;

ought to arise out of a desire on the part of the principal or department head to see how a certain manner of presentation was used by the teacher, to see how certain devices worked, or to obtain group judgment on the adaptability of certain curriculum material to certain pupil groups. This means organization of supervision by the principal. It requires of the department head and others not only a report of visits made but one of reasons for visits and results from visits. Without worthy reasons and tangible results they may as well not bother the class teachers any more.

Thus in the chief supervisory activities in which department heads now engage according to their own reports it is evident that the principal must play a directing part if maximum results obtain.

One supervisory activity which ought to be a large part of department heads' work and one only indirectly hinted at by them in their reports is the matter of curriculum development. Certainly at this point no great gains may be expected except under the influence of a principal who is pressing for progress here. Yet why organize any supervisory program if it is not intended that through it there shall be curriculum development. Curriculum modification, growth, development is the best test of the effectiveness of a supervisory program. Those who supervise are primarily responsible for the curriculum. Some schools are creating special curriculum revision organizations. No doubt this is necessary after so long a period of neglect but when we are caught up with the work, the curriculum should be turned back to those who supervise with the injunction not to let it get into such a bad way again. Certainly it would be unfortunate if principals and others who supervise came to feel that the creation of these special curriculum organizations absolved them from any responsibility for curriculum and that in the future another would be created as needed. A school system that is meeting its task fairly ought not need specially organized curriculum committee separate from its supervisory force. The curriculum is *their* chief responsibility. Supervisors working together as a group and each in his own special field, school, or department with the teachers there studying instructional materials—rearranging them, deleting portions, supplementing them with new ideas, experimenting, observing, and testing—here you have a picture of a permanent curriculum development organization. Not something extra that is saddled upon a system to meet an emergency but a continuous, inherent, integrated phase of the regular work of

the school. If such is the responsibility of supervisors, then department heads in secondary schools may naturally be expected to assume the lead in curriculum development each in his own department. McGaughy* records, in *Recent Tendencies in Supervision*, that in elementary education those who supervise are being held more and more responsible for curriculum development. The same tendency may well spread to the secondary school where the wide range of subject matter and the highly technical nature of much of the material precludes any possibility of one person being able to write curriculums and courses of study with equal facility in all fields. The department head is the logical leader.

But if the department head is expected to organize the department for curriculum development as a part of his supervisory duties certainly the principal ought so to organize the school through the department head meetings and general faculty meetings that unified coördinated progress may result. The principal must take the lead in developing a philosophy of secondary education and integrating teachers therein. This philosophy formulated into a set of concise statements can then become the basis upon which each department can develop a set of basis considerations affecting its field. These two in turn are the tests which every proposal for each revision, modification, elimination, or addition in material or method must meet before acceptance. The principal must initiate, organize, delegate, and supervise if there is to be unified progress in curriculum development all along the wide range of secondary-school subject matter.

Thus principals who would ornament the profession, who would succeed in the largest sense, finding themselves pressed upon all sides by the expanding responsibilities of leadership in a rapidly expanding institution refuse to relinquish their professional opportunities in the field of supervision but meet the issue by organizing an effective program of supervision and giving it intelligent direction.

As the principal fails in this, as he lets paper on his desk engross him, as he becomes absorbed in details of plant operation and management or as he deliberately wills to become the business executive of the school, secondary education fails for want of adequate supervision. Special subject supervisors may take up the task but capable

*McGaughy, J. R., *Tendencies in Supervision*, Teachers College Record, April 1928.

as they may be, a unified, coördinated program seldom results save through direction from the principal. In large high schools where administrative detail abounds, principals must choose between being educators in business or business men in education. If the latter represents the choice, both secondary education and the profession suffer and as a profession we become the modern Marthas of American education, being cumbered with much serving and troubled about many things.

The paper, *The Supervision of Instruction in City Senior High Schools* was presented by Bertram C. Richardson, Head Master of East Boston High School, Boston, Massachusetts.

DEMOCRACY AND SERVICE

A DISCUSSION OF SUPERVISION OF INSTRUCTION IN SENIOR HIGH SCHOOLS

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I bring you greetings from Boston, the city which, last year, entertained the convention of the National Education Association, and from the Boston Head Masters' Association, the organization which submitted to this body last February an extensive report on Character Education in Secondary Schools. This year, it has fallen to me as the representative of the Boston Head Masters' Association, to discuss before you Boston's attitude toward the Supervision of Instruction in Senior High Schools.

In making my contribution to this important topic, may I not, at the outset, call your attention to the twin ideals which, as it seems to me, exercise a commanding influence over the educational policies and procedures of the great school system of the city which I love and serve. These ideals are those of *democracy* and *service*; the one demanding respect and recognition for individual personality, and the other pressing the need of unselfish coöperation for the common good. It is not strange that this is so, for under the inspiring leadership of our Superintendent, Dr. Jeremiah E. Burke, himself a staunch believer in and successful teacher of democracy in education, these two

guiding principles have almost inevitably taken a tremendous hold on the teaching profession of Boston. As a result, whatever the educational problem that may be absorbing our professional attention, our interpretation and solution of it is likely to be strongly affected by our standards of democracy and service. It has been so with this matter of supervision in high schools. In all our consideration of it and behind all our determination and interpretation of its functions and procedures, there has been the compulsion imposed by our faith in the ultimate values of these two great guiding principles. Our present conceptions of supervision, therefore, are directed away from the factory system of unified central authority and dictation, and are turned toward an attempt to increase the efficiency and initiative of the individual teacher by a process of shared participation in joint responsibilities.

Along with a program of character training and professional ethics, supervision has been a major project for investigation in Boston for several years. In 1924, a course exclusively for principals was offered at the Teachers College in administration and supervision. In 1925, the Superintendent made a study of the administration, supervision, and teaching of principals and their relation to the amount of clerical assistance provided. His conclusion was "that in general an excessive amount of time is given to administrative detail," and that "the personal touch of principals with teachers and pupils seems likely to be lost." "It is unfortunate that so much time and energy of head masters of high schools is devoted to administrative affairs and so little to supervisory duties." (I may insert here that in seeking a remedy for this situation, smaller high schools are now being planned and the capacity of high school buildings under construction is being limited so as to provide for not more than 1600 pupils.) The Superintendent's study also revealed the fact that the technique of supervision in the various subjects is being entrusted to heads of departments and that there is need of a definite allotment of time from their regular classroom programs in which to do this important work. (This allowance has since been made and in the time thus provided definite supervisory duties are being undertaken.) During the same year, 1925, a survey of the school system from the standpoint of the teachers was made in which such topics as the following were frankly and creditably discussed by the teachers themselves:

Supervision in High Schools, Its Purpose and Value

The Principal and Supervision

Duties of Heads of Departments

Relation between Supervisor and Classroom Teacher

Is There Too Much, Too Little, or a Satisfactory

Amount of Supervision in Boston?

That such a survey was made by classroom teachers is indicative again of the democracy of the Boston school system which affords to teachers a very large participation in administrative affairs.

In 1926, the Head Masters' Association prepared a report on the duties of heads of departments which included a survey of several large cities. The report arrived at these conclusions; that, because of the many and varied duties of administrators and executives, a constantly increasing responsibility of leadership in the matter of supervising instruction was falling to the heads of departments; that the many problems of correlation within each department and the articulation between curricula emphasized more than ever before the importance of their task; and that the revision of courses of study and curricula now in progress, not only in Boston but throughout the country, and the readjustments and complex problems relating to the junior and senior high school can, in most instances, be best solved by this rank of the high-school service. Among the recommendations made in this report for the improvement of instruction, the following may be noted:

1. As directed by the regulations, supervision is a definite duty of heads of departments.
2. In the opinion of the head masters, it is important that the sole purpose of all supervision be the improvement of instruction.
3. The keynote of this supervision should be sympathetic co-operation.
4. The inspectorial function of the supervisor should be reduced to a minimum.
5. There should be mutual confidence and respect between teacher and supervisor.

6. The younger teachers should receive special attention and in every way be encouraged and carefully trained.

7. Demonstration of proper methods of instruction should constitute a part of a carefully organized program of coöperative supervision.

8. Conferences and departmental meetings should be arranged at regular intervals and should be of such value that they will make a proper appeal to all teachers in attendance.

9. While there should be proper correlation within the subject matter of each department, there should be proper provision for organizing the initiative and originality of every member of a department.

10. Professional reading with special reference to approved methods, and progressive changes in the field of education should be definitely provided for in the department program.

11. A feeling of pride in the department—in the achievement of its members, individually and collectively, should be promoted.

12. Where possible there should be some objective measurement to test the effectiveness of instruction.

In 1927, a member of the Harvard School of Education gave a series of addresses on supervision, at the invitation of the Superintendent, before principals and members of the supervising staff. This was followed by a special series of conferences on supervision for high school head masters and heads of departments conducted by a representative of the School of Education of Boston University. Complete abstracts of these conferences were prepared and distributed to all members attending the course, for consultation and reference.

The past year has been devoted to absorbing, digesting, and putting into practice the large amount of helpful and stimulating information thus acquired. The appointment of one of the Assistant Superintendents, Dr. Mary C. Mellyn, to direct and coördinate the work done in the field of supervision, round table discussions by head masters in their monthly meetings, a study of the technique of supervision by the heads of departments through their councils, formal reports on the year's supervisory experience and work to the head

masters by the heads of departments, are some of the high spots of the year.

Out of all these years of effort, these conferences, discussions, reports, studies, surveys, etc., a new conception of supervision, in terms of democracy and service has been emerging. The best statement of this new conception has been made by Assistant Superintendent Mary C. Mellyn. In an address, recently delivered before the Boston Head Masters' Association, she said:

"Supervision is the process of improving and evaluating instruction. Supervision, as inspection only, came over into our work from the business field, and to many in our profession still means inspection. We are learning that inspection is not supervision—that inspection goes only part of the way and carries with it no educational connotation. Supervision in the educational field means sharing with the teacher the responsibility for improved instruction, and thus becomes in our work a coöperative enterprise.

The center of instruction is the pupil and his reaction to the teaching of the classroom is what is supervised. True supervision is an intensive study of the pupil's response, and the measure and value of his activity is the measure and value of the teacher's ability. It is for the good of the pupil that supervision exists—not to sit in judgment upon the teacher's questions and methods, but to judge of those methods in their effect upon the pupil. This attitude towards supervision means a release of the energy of the teacher along avenues of teaching, for she, too, is concentrating on the pupil and studying his reaction; and, in the light of her study, is changing her methods. With the pupil as the center, then, with teacher and principal coöperating in his educational progress, we have the three factors in educational supervision."

This interpretation of supervision, which has come as a challenge to every head master, has already proved tremendously invigorating and helpful. Its strength lies in the coöperative nature of the enterprise, and we are finding that teachers who have hitherto been adverse to any and all supervision are willingly responding to a program

which calls for a sympathetic evaluation of their work and power in terms of their pupils' response. They are realizing that whether the class response shows initiative, organizing power, and a sense of values, or whether it is partial, superficial, and not worth while, that like qualities may properly be attributed to their teaching, and they are rightly looking for a true evaluation of their instruction as the result of a just measurement of the individual response of their pupils. They are coming to an appreciation of what it means to be an active coöperating agent in supervision which has for its object the improvement of instruction.

To lay the major responsibility for this program of coöperative supervision upon the shoulders of the head masters does not mean that head masters are to have no administrative or inspectional functions. These functions will remain, important and time-consuming as always. The emphasis is, however, being placed where it doubtless belongs on this third and most important function of the principal, that of supervising the instruction given in the school. This is wholly in line with what Dr. Franklin Johnson says, when he declares that every principal should make as the basis of his philosophy of education the following essentials:

1. Schools exist that children should be taught.
2. The learning of the pupils should be directed toward specific aims or objectives.
3. Whatever is done by anyone connected with the school (principal, teacher, janitor) should contribute to this learning process."

That this work may be performed as a democratic service, we have been asked to change the direction of our supervision; to use no longer the supervision of *inspection* in which casual visits reveal quiet orderly classrooms and but little else; to discard the supervision of *dictation* which seeks to obtain fine school procedures through directions declared at faculty meetings; to abandon the supervision of *complacency* whose sole object is to commend for the sake of leaving a pleasant atmosphere, and which leaves no challenge or inspiration; and instead to appropriate and make use of the supervision of *service* which seeks, through coöperation with the teachers, to improve the quality of the best they possess for the sake of those they teach.

The Boston situation shows that, in senior high schools, while heads of departments are assumed to have supervision in their special fields, the head master is assumed to have supervision in all fields. He is expected to direct the work of his heads of departments. These heads, selected from rated lists for their superior ability in their special fields of learning, have not, for the most part been trained in supervision. They recognize this and are seeking to become skilled in this new enterprise. Many are taking or will take courses with this end in view. But they need help and direction; such help and direction as the principal alone is in a position to give. He must set up for them the ideals and goals they are to reach, and he must recognize and appreciate good work. For the present these supervisors are doing a large amount of constructive planning and guidance in an attempt to develop a technique, and are acting under the following general instructions: not too much visitation; frequent personal conferences; encouragement of individual initiative; study of distribution of marks; study of the per cent of failures and causes; uniform tests; departmental meetings and conferences. The head master is the leader. He is the major responsibility. Upon him depends the success or failure of the entire scheme. He is the exemplar and guide for both teachers and pupils, and he must possess within himself those qualities of mind and soul which will inspire their confidence and respect. St. Paul in one of his epistles gives good advice to head masters who would supervise successfully. He says, "Look not every man upon his own things, but every man also"—it is double—"on the things of others." Here is the secret of it. First examine yourself, look over your own equipment, repair and renew where needed, and then, and only then, proceed to the consideration of the work of helping others. Supervisors must, if they are to be wise helpers in this pastoral work, be possessed of an "understanding heart." They must, too, be consistent believers in and followers of the Biblical injunction which admonishes that "precept must be upon precept, precept upon precept, line upon line, line upon line, here a little and there a little."

The following self-study survey has been furnished the Boston head masters as a guide to those qualities which supervisors should possess:

SELF-RATING SHEET FOR SUPERVISORS OF INSTRUCTION

1. Training for the Supervision of Instruction
 - a Have I the education of a man or woman of culture?
 - b Have I expert knowledge in my special field?
 - c Do I stand out as a skilled worker in this field? Do my contemporaries so regard me?
2. Knowledge of the Objectives of Supervision
 - a To improve technique
Have I sufficient skill to improve teaching technique in the department or school under my charge?
 - b To organize curricula
Do I know educational aims and values so well that I can encourage flexibility in method, and an enriched and varied curriculum adapted to pupils' needs.
 - c To train Teachers
Am I professional enough to stimulate the growth of my associates, accord generous credit to their achievement, and give them the freedom which each individual needs for his development?
 - d To Evaluate Teaching Power
Have I a plan by which I measure classroom achievement?
3. Individual Traits of the Supervisor
 - a Professional
 - (1) Have I the ability to formulate an educational policy for solution of problems in my department or school?
 - (2) Am I able to inspire my associates with confidence in my leadership?
 - (3) Am I able to work loyally and coöperatively with my associates and superiors?
 - (4) Am I able to put myself in another's place and get his viewpoint of my procedure? (The most important thing for successful supervision.)
 - (5) Do I think and speak and act the truth?
 - (6) Have I sufficient courage to stand for principle?
 - (7) Have I an abiding sense of justice?
 - (8) Am I able to administer a department in the light of democratic ideals?
 - b Social
 - (1) Am I openminded and ready to receive suggestions?

- (2) Have I a sense of humor?
- (3) Are my speech and manners in accord with social demands?
- (4) Have I some community interest which will broaden my mental horizon?
- (5) Do I render a worthwhile and constantly constructive service?

DR. MARY C. MELLYN

This self-survey indicates, then, the qualities with which principals should be endowed if they are to lead successfully their schools out into light and life. It is essential that along with the aptitude for vicariousness, that prime requisite for successful supervision, there be also the willingness to be forgotten, the habit of self repression, and the disposition to sacrifice one's own interests that others may advance.

Thus equipped and with such a democratic attitude toward his task, a head master's supervision cannot fail of being a help and inspiration to his school. He may not always be conscious of it, for this sort of supervision deals with intangibles and apparent results are not always in evidence. Content to furnish the right background, he must patiently await, in the midst of discouragements, the ultimate favorable outcome. He need expect but little praise. Fortunate the principal who now and then garners an occasional word of appreciation. I know a principal who recently received from one of his teachers a copy of Edgar Guest's poem on "The Things He Didn't Do" with this original and "missing" verse attached:

"The teachers missed him from each class;
Their work grew dull and dreary.
And when the children out did pass,
O for his smile so cheery!
They knew that programs must be done
Before the long vacation,
And honors given that had been won,
But they lacked inspiration."

Appreciation makes even supervision worth while. Of course it is not easy. It is probably a more difficult way of supervision than any previous way that we have followed. It is one in which values

are elusive and results are much less capable of being evaluated and checked. It is a new path, beset with difficulties, but to the head masters of Boston it seems the right path, for, to us, it is the path of *democracy*, it is the way of *service*.

Professor A. S. Barr of the Department of Education, University of Wisconsin, presented his paper, *The Supervision of Classroom Instruction*.

THE SUPERVISION OF CLASSROOM INSTRUCTION

A. S. BARR,

DEPARTMENT OF EDUCATION, UNIVERSITY OF WISCONSIN

I have been asked to speak this afternoon on the supervision of classroom instruction. I shall define classroom supervision narrowly and in the sense of the supervision of teaching in the classroom. Thus defined, classroom supervision is not the whole of supervision, but merely a part of it. Accordingly, I shall not discuss many of the problems ordinarily treated in more general discussions of supervision. I shall not discuss organization and its attending questions, such as : (a) The functions of various supervisory officials; (b) The interrelationships of supervisory officials; (c) Types and principles of organization; and (d) The numerous sundry problems of organization. Neither shall I discuss the general functions of supervision such as: (a) The training of teachers in service; (b) The selection and organization of subject matter; (c) The determination of method; (d) The development of standards of attainment and means of measurement, etc. In short, I shall omit from this paper all reference to the more general problems of supervision. Thus we shall limit our discussion to the direct improvement of instruction through classroom visitation and conference.

In starting this discussion, I should like to draw a distinction between the general and the direct improvement of instruction. Supervision may be thought of as a means of raising the general instructional level of the school system through such activities as curriculum construction, experimental studies of teaching and learning, and various programs for the training of teachers in service, and the like; or it may be thought of in a very different way, as the improvement

of the work of specific teachers. Thus thought of, supervision becomes a matter of diagnosing teaching situations, and the planning of remedial programs. If the supervisor is scientific in his point of view, his problem becomes that of providing objective analyses of teaching and experimentally determined programs of work. It is in supervision as the direct improvement of teachers that I shall concern myself in this paper.

I should like to digress to say that I have a definite objective in mind in drawing a distinction between the general and the direct improvement of teachers. I am interested in making supervision more objective and more scientific. I know that to do so we must isolate for consideration certain aspects of supervision that are more specific and less complex. In order to make the situation concrete, let us imagine that we have come into the classroom to supervise. We have thus before us a teacher and some pupils. We have, therefore, a very definite situation. We can go about our analysis carefully and systematically. As a matter of fact, we might define supervision, for the time being, as the teaching of teachers how to teach, and we could accordingly go about the development of a program of scientific supervision very much as we have gone about the scientific study of teaching during these last two decades, studying objectives, content, the teaching process, the learning process, and results. It is just such a program as this that I have in mind for classroom supervision. To realize this program it is convenient to distinguish, for the time being, between the general and the direct improvement of teachers.

If we take this point of departure in classroom supervision, we have first to determine the objectives of supervision, and then the desirability of various supervisory programs (i.e., the supervisory curriculum); then the effectiveness of different supervisory procedures (i.e., the supervisory process), how teachers learn to teach (i.e., the learning process in teaching), and finally set-up measures of progress. A good teacher measures the results of her instruction. I predict that the good supervisor of the future will be much more concerned about measures of the results of his supervision than he is at present. I wish I had time to discuss each of these aspects of supervision in detail.

In order to keep the situation as concrete as possible, let us imagine again that we have come into the classroom to supervise.

We want to be as effective as possible. How are we to proceed? We have before us a teacher and some pupils—teacher and pupils. As a matter of fact, as we analyze the situation we recognize a number of elements, namely, a teacher, some pupils, subject matter, teaching, learning, and learning products.

We might start our analysis by studying the teacher—her experience, professional equipment, physical equipment, personal equipment, social equipment, and the like, or we might start our analysis by studying the pupils, their intelligence, their achievement records, their personal and social equipment, etc., or we might study the subject matter, its social value, its relative value, its form of organization, and the like. We shall probably want to do this in the development of a complete program of classroom supervision, but let us forget, for the time being in this shorter discussion, the teacher, the pupils and the subject matter, and look merely at the teaching.

To return to a concrete teaching situation, we have before us a teacher and some pupils. We are interested, for the time being, in the teacher's teaching. What should supervisors look for in their analysis of teaching? I wish I had time to ask those of you present to list for me the three or four items of teaching which you consider particularly important in the analysis of teaching, and which you would ordinarily look for in classroom supervision. Of course, we haven't the time to do this. I have, however, made just this request on numerous occasions. At a recent meeting of school men assembled to discuss problems of classroom supervision, 106 superintendents, supervisors, and principals listed the specific items of teaching which they usually observed in classroom supervision. These lists were made on the spur of the moment and are probably not as complete or as carefully stated as they might have been under more favorable conditions, but they represent certain more or less interesting facts about the present status of classroom supervision.

In the first place, as one examines these materials, one is impressed by the lack of agreement among supervisors as to the important characteristics of teaching. These 106 supervisors supplied 131 different items to observe, seventy-two of which were mentioned only once. It seemed a bit as if each supervisor employed his own system of supervision. This matter is one of some importance since supervisors occupy positions of authority, hiring, dismissing, and variously

advising teachers accordingly to these private systems of supervision. Are these various items ordinarily observed by supervisors important characteristics of good teaching? They seemed to me like so many unvalidated test items based upon the personal choices of the supervisors using them. A list of the twenty most frequently mentioned items is given below:

WHAT SUPERVISORS LOOKED FOR IN CLASSROOM SUPERVISION

	Frequency
1. Pupils' interest in subject.....	30
2. Physical conditions in room.....	24
3. Attitude of pupils.....	18
4. Pupil activity	17
5. Definite teacher aim.....	15
6. Responsiveness of pupils.....	15
7. Attitude of teacher.....	14
8. General attitude of teacher and pupils.....	13
9. Atmosphere in classroom.....	12
10. Skill in teaching technique.....	12
11. Evidence of teacher preparation.....	10
12. Method of instruction.....	9
13. Assignment	8
14. General appearance of room.....	8
15. Evidence of pupil preparation.....	7
16. Ability of teacher to "put across".....	7
17. Teacher and pupil coöperation.....	7
18. Work going on.....	7
19. Type of questions asked by teacher.....	6
20. Discipline	6

A second characteristic of these items is their subjective character. Expressions such as "attitude of pupils," "atmosphere of the classroom," "spirit of coöperation," "responsiveness of the class," "teachers' sense of justice," and "move of the recitation," regardless of their importance as proper constituents of teaching, are entirely too subjective to serve adequately the purposes of classroom supervision. No two supervisors, for example, would probably agree upon the amount of attitude possessed by a given class or the quality of their responsiveness or attention or move. I have been very much interested in the subjective character of current items to observe, and have developed elsewhere* a complete theory of how I think that classroom supervision may be made more objective. To go into this matter here would carry us entirely too far afield.

*Barr, A. S. "An Evaluation of Items to Observe in Classroom Supervision," *Journal of Educational Research*, XVIII (June, 1928), 53-65.

FORM PQ *Items to Observe*

Item	Rating									
	1	2	3	4	5	6	7	8	9	10
1. Attitude of the pupils										
2. The teacher's aim or objective										
3. Teacher's skill in asking questions										
4. Evidence of teacher preparation										
5. Responsiveness of pupils										
6. Selection and organization of subject matter										
7. Provision for individual differences										
8. Motivation										
9. General appearance of the room										
10. Quality of work done										
11. Move of the recitation										
12. Discipline										

General Merit Rating (draw a circle around one of the following numbers)

1 2 3 4 5 6 7 8 9 10

The seriousness of the present situation in classroom supervision can be more fully realized from a study of the reliability of supervisory observations. The writer recently secured the assistance of some sixty supervisors in the analysis of two thirty-minute recitations in arithmetic, one in addition, and one in multiplication. The pupils were eight, nine, and ten years of age and represented a typically heterogeneous group. The teacher was a graduate student in the university with two years of teaching experience. Both teacher and pupils were relatively unknown to members of the supervisory groups.

The problem presented to this group of supervisors was one of correctly analyzing a teaching situation about which they had no advance information. Each supervisor was supplied with a form (Form P. Q.) containing twelve items more or less typical of those used in conventional classroom supervision. These supervisors were directed to study the teacher's work and evaluate her performance for each of the twelve items. The directions to supervisors were as follows:

TABLE I
A SUMMARY OF THE RATINGS OF SOME SIXTY SUPERVISORS OF TWO THIRTY-MINUTE RECITATIONS IN ARITHMETIC
FOR TWELVE ITEMS MORE OR LESS TYPICAL OF THOSE USED IN CONVENTIONAL CLASSROOM SUPERVISION

Ranks	Attitude of pupils		Teacher's aim or objective		Teacher's skill in asking questions		Evidence of teacher's preparation		Responsiveness of pupils		Selection and organization of subject matter		Provision for individual differences		Motivation		General appearance of the room		Quality of work done (pupil)		Move of the recitation		Discipline		General merit		
	(1)*	(2)*	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	
1	38	8	14	10	0	0	8	11	19	8	14	14	19	15	5	3	7	6	2	2	3	0	35	18	3	0	
2	19	21	15	13	5	7	8	14	18	11	15	10	21	14	6	8	9	7	7	19	8	13	8	17	13	9	4
3	8	8	5	11	9	8	8	10	13	7	11	9	6	6	13	9	9	7	19	8	12	6	4	15	16	9	
4	0	5	6	7	10	10	11	3	15	3	7	4	6	13	7	3	3	3	13	7	7	7	1	7	16	12	
5	0	8	4	5	7	3	9	4	1	6	6	3	4	2	8	6	9	10	5	6	4	5	1	2	7	12	
6	0	4	4	0	2	5	2	3	1	3	3	0	2	4	3	1	4	5	1	1	4	2	0	0	5	5	
7	0	4	2	2	4	8	5	1	0	2	1	4	0	3	5	6	2	0	3	11	8	11	0	1	1	5	
8	0	4	5	3	4	1	4	2	1	6	1	3	1	3	1	4	9	10	5	3	4	6	0	0	5	7	
9	0	1	2	3	4	3	3	2	0	0	4	2	1	0	6	10	2	3	1	5	0	7	0	2	2	4	
10**	0	0	0	0	7	10	0	1	2	0	0	6	1	6	4	7	5	7	1	3	4	4	1	1	0	2	
A***	1.5	3.9	3.7	3.4	5.6	5.7	4.2	3.4	2.5	3.8	3.2	4.0	2.6	3.8	4.8	5.6	4.9	5.3	4.1	5.3	4.5	5.8	1.7	2.7	4.1	5.3	

*First and Second Recitations.

**A score of one is excellent and a score of ten is poor. The numbers at the right indicate the frequency with which each item was assigned to each rank.

***Average rating assigned to each item.

TABLE IIA
COEFFICIENTS OF CORRELATION FOR PAIRED OBSERVATIONS UPON TWELVE ITEMS
TYPICAL OF THOSE USED IN CONVENTIONAL CLASSROOM SUPERVISION.

Items	R	P E
1. Attitude of the pupils	+ .311	.082
2. The teacher's aim or objective	+ .342	.078
3. Teacher's skill in asking questions	— .156	.085
4. Evidence of teacher preparation	+ .347	.077
5. Responsiveness of pupils	+ .296	.079
6. Selection and organization of subject matter	+ .319	.082
7. Provision for individual differences	+ .426	.069
8. Motivation	+ .443	.074
9. General appearance of the room	+ .260	.080
10. Quality of work done	+ .234	.081
11. Move of the recitation	+ .768	.036
12. Discipline	+ .256	.08
13. General Merit rating	*+ .178	.084

*The thirteenth item is for general merit.

"Observe the work throughout the entire recitation period. Take such notes as you need to take. Fill in the rating scale at the end of the recitation period. In filling in the ratings remember that teacher's performance may be excellent in one respect and poor in another. She may be skillful in asking questions, for example, but poor in discipline or vice versa. Remember to use the entire range of the rating scale if necessary. We shall attempt to demonstrate all levels of merit. Fill in the general merit rating at the bottom of the page (sheet)."

The important fact to note is that we have here in this experiment sixty supervisors, all observing the same teacher teach at the same time under the same conditions. If supervisors can agree in their analyses of teaching, they should more nearly do so under carefully controlled conditions such as these, where they may observe the same teacher teach the same subject and the same pupils under the same conditions. The results are presented in Table II.

The outstanding fact brought out by these data is that supervisors cannot agree when they are asked to analyze a teaching situation, about which they have no advance information, and when they use twelve items more or less typical of those used in conventional classroom supervision. While the writer expected that they would not agree, he did not expect such market disagreement. In fourteen of the twenty-six ratings these supervisors spread their ratings over the entire ten-point scale; in eleven instances their ratings covered nine points, and in only one instance did they show any agreement whatsoever. In rating motivation, for example, twenty supervisors (second observations) said that the motivation was superior, and twenty-one supervisors said that it was very poor. In general merit thirteen of these supervisors rated this teacher as superior (second observation), but thirteen other supervisors rated this same teacher as very poor. These last named supervisors would doubtless have discharged this teacher at the end of the year if he were employed under their direction; the first thirteen supervisors would doubtless have re-employed the teacher with a promotion and increase in salary. After the demonstration was over, one group of supervisors commented upon the very poor quality of teaching exhibited; in another group a superintendent of schools made the remark that he wished he might

employ this teacher for the coming school year. The point is that conventional supervision is highly subjective.

A further study of the reliability of supervisory observations was made by correlation methods. It will be recalled that these sixty supervisors observed the teacher teach two recitations. Taking the ratings for the two observations as pairs of scores, the coefficients of correlation were calculated for each of the twelve items which composed the recitation score card used in this demonstration.⁵ These data are presented in Table IIA.

The implications of these data may be explained as follows. Let us suppose that a supervisor has time to visit a teacher for thirty minutes. How reliable a measure of the ability of this teacher can the supervisor secure from a thirty minute observation? The answer to this question is given in the coefficient of correlation reproduced in Table IIA. With the exception of item No. 11⁶, the coefficients are uniformly low, thus attesting to the low reliability of supervisory observations.

The significance of this data may be more fully understood when the coefficients of correlation are translated into percentages of forecasting efficiency (Table IIB).

TABLE IIB
RELATION OF COEFFICIENT OF CORRELATION TO THE PER CENT OF
FORECASTING EFFICIENCY.⁷

r	E (per cent)	r	E (per cent)
.10	.5	.70	29
.20	2	.80	40
.30	5	.90	56
.40	8	.95	69
.50	13	.98	80
.60	20	1.00	100

⁵Thirteen including the general merit ratings.

⁶This is doubtless a chance correlation.

⁷Hull, Clark L. "The Correlation Coefficient and Its Prognostic Significance." *Journal of Educational Research*. 15: 327-338. May, 1927.

The average coefficient of correlation is approximately .30. A coefficient of correlation of .30 has a forecasting efficiency of five per cent, which means that if these supervisors had closed their eyes, stopped up their ears, and then had rated these recitations at random upon the twelve items which composed the recitation score card used in this demonstration, their ratings would have been only five per cent poorer than they were when rated according to conventional standards of classroom supervision. In light of these facts, supervisors will need to exercise extreme care in their supervision of teaching. The problem is a difficult one and presents a real challenge to all those interested in the improvement of the character of classroom supervision.

In the foregoing discussion, I have only illustrated the kind of analyses that need to be made of the various aspects of classroom supervision if supervision is to be most effective. If time permitted, we might apply the same procedure to the study of the teacher, of the pupils, the subject matter, the learning process, and to learning products. I hope that no one will feel that while my illustration has been taken from the field of teaching, that I have forgotten the pupils. The primary purpose of supervision is to provide better learning conditions for pupils through the instrumentality of better teaching. As a matter of fact, it is in the study of pupils that supervision has made most progress. We are coming every day to provide better learning conditions for pupils through better diagnosis, better classification of pupils, better selected and better organized subject matter, better methods of study and better measures of progress. The supervisor must see both the teacher and the pupil. His ultimate objective is always the bringing about of worth while changes in pupils.

In conclusion, the situation with reference to classroom supervision may be summarized as follows: In the first place, current supervision is highly subjective and unreliable. We are in need of better means of analysis. The data gathering devices of supervision need to be tested for validity, reliability, and objectivity just as other data gathering devices have been evaluated. Secondly, more attention needs to be given to the selection of training programs. Having discovered that the teacher is weak in discipline, lacks knowledge of subject matter, or has a poor teaching technique, the problem which confronts the supervisor is that of determining where to begin the super-

visory program. Supervisors at present serve their own convenience in setting up training programs. Training programs are selected freely, often haphazardly with little evidence as to their possible effectiveness. Little is known about the probable ultimate affect of different units of supervision expended in any one or many different directions. Supervision has been too much of a trial and error process. Thirdly, we need more information about the relative effectiveness of various supervisory devices. The supervisor, in attempting to improve the teachers work, may talk to the teacher, write to her, direct her to sources of information, demonstrate procedures, provide means of self-analysis, self-criticism, and self-improvement, or utilize various experimental techniques. Little is known, at present, about the relative effectiveness of these procedures. We really know very little about how to supervise effectively. Our practices are based pretty largely upon tradition and are probably not particularly effective.

Fourth, we need to know how teachers learn to teach, which activities are first and which are last mastered (if at all mastered); the mental and physical defects still to be overcome; the kinds, amounts, and rates of learning; individual differences and allied problems, if supervision is to be most effective.

Some of the best improvements that have come in teaching procedures have come through a better understanding of how pupils learn. At the present time, we know practically nothing about how teachers learn to teach. Finally, we need to have adequate means of measuring the products of supervision. If supervision is to be most effective, supervisors must have better means of measuring the changes produced by supervision. Supervisors at present know little about the results produced by them in their supervision. It is only when results are known that procedures may be improved. Without adequate measures supervisory activities may become an end in themselves, disassociated from either objectives or outcome. There may be plenty of activities but to no feasible end.

It has been my purpose throughout this discussion to indicate problems rather than solutions. I have dealt with only one aspect of supervision, namely, classroom supervision. It has been my purpose throughout to indicate something of the problem that is ahead in the development of an adequate system of classroom supervision in secondary schools. The field is a complex one and should challenge the attention of every secondary-school principal.

FOURTH SESSION

The fourth session of the Convention met in the Cameo Ballroom, Hotel Winton, at 1.00 P. M. Wednesday, February 27, 1929. Three hundred fifty-five men sat down to luncheon.

President Kadesch of the Department gave great and deserved praise to Assistant Superintendent Charles H. Lake of Cleveland for his aid in making this meeting a success.

Head Master Bertram C. Richardson of East Boston High School presented the *Report of the Committee on the Observance of the Three Hundreth Anniversary of American Secondary Education*.

COMMITTEE REPORT ON 300TH ANNIVERSARY

Department of Secondary School Principals of the National Education Association:

Gentlemen:

The committee appointed after the Boston meeting "to study the advisability of arranging for some sort of nation-wide recognition during the year 1934 of the 300th anniversary of American secondary education," has the honor to present the following report:

In 1630 the first settlers landed at the mouth of the Charles and there established in the town of Boston the beginnings of the Commonwealth of Massachusetts. It is impossible for us to understand the crudeness of this first settlement on the edge of an inhospitable wilderness cut off by three thousand miles of the North Atlantic from the homeland, nor can we realize the privations and hardships which these sturdy yeomen, their women and their children, endured in the harsh surroundings of their new home. Despite these hardships and sufferings, anxious that their children might not be deprived of the advantages that had been their fathers', they determined, within five years of their coming, to set up a school—not a Dame's School, but a Latin-Grammar School—a *real* secondary school.

The Boston Town Records read as follows:

"The 13th of the 2d month, 1635, Att a General meeting upon publique notice . . . it was then generally agreed upon that our brother, Philemon Pormott, shall be in-

treated to become schoolmaster, for the teaching and maintaining of children with us."

Thus within the mud walls, under the thatched roof of the Meeting House, was established the first public school in America. Here was sown the seed from which has sprung the whole American system of free education. There is, indeed, fair reason to question whether that system ever would have taken on its breadth of range if this school had not been at the very beginning—a school for higher education, instead of one confined to the elements of instruction.

With wisdom and prophetic vision up to that day unmatched in the history of education, the Fathers raised no barriers of religion or of wealth, to membership in this school. Through the Latin-Grammar School they opened wide to every man's son the door of opportunity for securing the best training of the age in preparation for the service of his people and of mankind. It is fitting and in every way proper that this Association of Principals of Secondary Schools, the lineal descendants of The Masters in charge of that first school at the foot of the three hills in old Boston, should commemorate in due form and with adequate ceremony, in 1935, the three hundredth anniversary of the founding of this earliest public secondary school.

Your Committee, therefore, recommends that a permanent committee be appointed by the President of this Association, to formulate plans for a fitting observance of this anniversary.

PATRICK T. CAMPBELL
Chairman

The presiding officer then asked Dr. Charles H. Judd to introduce Commissioner of Education, William H. Cooper. President Nel W. Lamkin of the National Education Association brought greetings from the parent association and urged the members to: (a) Aid in state legislative education programs; (b) Spread information to the public through local newspapers and magazines of the aims and ideals of American education; and (c) Aid in research in educational problems.

Professor George D. Strayer of Columbia University read N. L. Englehardt's paper on *The Effective Utilization of the High-School Plant*.

THE EFFECTIVE UTILIZATION OF THE
HIGH-SCHOOL PLANT

N. L. ENGELHARDT,

PROFESSOR OF EDUCATION, TEACHERS COLLEGE
COLUMBIA UNIVERSITY

The sum of approximately \$400,000,000 is being spent annually in the United States for the erection of school buildings. A very significant part of this sum is being devoted to the erection of high-school buildings. The communities of the United States have tended to spend more freely for high-school structures than they have for elementary schools. Thus, high-school principals throughout the United States are responsible for the management and utilization of the most generously developed parts of the school plant. Senior high-school buildings have been built in many localities costing as much as \$1,000 per pupil of the estimated capacity. In these same communities, a similar per pupil cost for junior high schools has ranged from \$500 to \$700, while the per pupil cost of elementary schools has been considerably lower, ranging from \$300 to \$500.

According to the 1929 Yearbook of the Department of Superintendence, there are exactly 1,000 high-school buildings in the United States which have an enrollment of more than 800 pupils. There are approximately 1,200 high-school buildings in which the enrollment ranges from 401 to 800. The remainder of the 18,157 high schools in the country have enrollments of 400 or less; in fact, 60 per cent of them have enrollments of 100 pupils or less. In the larger high schools, where enrollments range from 800 to as many as 8,000, the high-school principal is placed in charge of a school plant which may range in cost from a possible \$500,000 to a cost exceeding \$5,000,000 for the single school building. The responsibility for securing an adequate return from the investment of \$500,000 or more is thus frequently the obligation of a high-school principal. At least 1,000 high-school principals in the United States have the management of a plant, the present replacement cost of which was in excess of \$750,000. The number of high-school buildings costing \$1,000,000 or more is increasing. The literature on the utilization of these buildings is exceedingly limited. The two significant studies by Packer and Mor-

phet¹ have, however, opened up the field and should encourage others toward further analysis for the purpose of securing the maximum possible return from these generous capitalizations.

When a high-school building has been erected, the assumption is that it has satisfied a real need in the community. Because of the problems involved in planning and construction, the general practice is to plan such buildings in terms of a capacity which will be reached within a four-to-five year period after erection. During the first few years, it is not to be expected that the building will be utilized to its full capacity. Capacity utilization should, however, be reached within a reasonable period. Whether being utilized at capacity or not, each schoolhouse costs its community a certain sum of money for housing purposes alone, or for what might be called the mere existence of the plant. To get some idea of the plant cost for mere existence, it may be well to compare these costs with the amount of money paid high-school principals for the conservation and utilization of plant. The housing charge, irrespective of maintenance and operation, might well be considered at 6 per cent. A depreciation charge of 2 per cent would be conservative. Thus, a \$1,000,000 building presents a minimum annual rental cost to the community of \$80,000. According to industrial and commercial practice, a more reasonable rental charge would be 10 per cent of the total cost, or \$100,000 per year. This is a sum equivalent to twenty years of work on the part of a high-school principal who is paid, on the average, \$5,000 a year. Thus, the cost to a community of a \$1,000,000 building may be as large in a single year as the cost of twenty years of a high-school principal's time, according to some salary schedules which are now in effect. In fact, the annual carrying charge for such a building will be the equivalent of the annual salaries of about thirty-five to forty-five teachers. These rental costs which are exclusive of maintenance and operation are, to be sure, not entered as current costs but they, nevertheless, represent one aspect of the cost of education incurred by our communities which cannot be ignored. Many of our high-school buildings, judging from the utilization studies which have been made, are not being utilized to a maximum. Higher percentages of utilization must be secured and boards of education will do well to see that

¹Packer, P. A. *Housing of High School Programs* (1924).

Morphet, E. L. *Measurement and Interpretation of School Building Utilization* (1927). Bureau of Publications, Teachers College, Columbia University.

such administrative achievements are reflected in higher levels of payment for those who achieve.

There has been much discussion concerning the ability of communities to continue to pay sums increasing in amount for the support of public education. It has been suggested that there should be a curtailment of the total amount spent. There is no question about the generosity of the American people in their support of public education. The desire for education on the part of the people in our democracy will be satisfied by further increases and even more generous financial support of the educational program. It should be recognized, however, that there are always limitations to the amounts of money which become available for educational support under any economic conditions. These limitations are often expressed by legal statutes or by charter provisions and are indicated by percentages of assessed values or by percentages of the total annual budgets set up by all of the governmental agencies in the several communities. The school administrator who recognizes the necessity for conserving the sources of school income thinks of educational expenditures in terms of productive and non-productive returns. He is conscious of the fact that large sums of money drawn out of the public purse for debt service or capital outlay, or for the maintenance and operation of poorly utilized plants, will prevent the expansion of the curriculum, will curtail the budget for teacher payment, and thus will tend to create dissatisfaction with the returns secured from the total sums invested.

If a \$500,000 building is being utilized only to 80 per cent of its possible utilization and, even at this point, is considered overcrowded by the administration, it is reasonable to assume that the school authorities have taken \$100,000 out of the public purse and are not expecting to give a return. If this sum had been left with its original owners, it might have produced an income of \$6,000 a year, part of which, in turn, might be expended for teachers' salaries or some other educational need. If an investment has been made in a modern school-house, and a total possible utilization has not been attained, there is a loss to the community if children in the junior high school or elementary school are less adequately housed than they might have been if the excess expenditure in the first instance had been devoted to their betterment.

When all of the school buildings of a community have been rated, it has usually been found that the high-school building scores at a higher point on a 1,000-point scale than most of the other buildings in the community. In fact, the difference between the score of the high school and that of the poorest elementary building has been astonishingly great. Illustrations are to be found where elementary buildings in some communities rate as low as one-quarter of the high-school score. It should be noted, however, that the high-school building utilization is represented in practically all of these cases by a percentage far less than that to be found in any of the elementary school buildings. There may be no possible way of securing a complete adjustment between these two situations so that each dollar of building investment may be represented by an acceptable percentage of utilization. It may be that the difficulties inherent in high-school program-making prevent the attainment of a high degree of utilization. It is, however, incumbent upon the administrator to satisfy himself that the money invested in the plant placed in his charge is bringing a return which should be considered reasonably satisfactory under present secondary-school conditions. It is interesting to note that after expenditures for a building have been authorized and the building has been erected, the community itself gives little consideration to the utilization aspect of the investment return. The high-school principal has, in most cases, been given a free hand to determine how his building is to be used. The highest possible percentage of utilization will, of course, be his aim.

Morphet, in his very extensive study of the measurement and interpretation of school building utilization, presents the methods to be employed in the analysis of utilization. The details of method are fully given in this study. The results of his thorough analysis of the utilization of fifty-two school buildings during the regular school hours are of present interest to us. Room utilization and per pupil station utilization are the two phases of this problem for which Morphet gives results. Room utilization has been the most commonly used basis for the determination of the adequacy of building use. From a study of its definition, it is clear that room utilization must be coupled with the pupil station utilization if any satisfactory analysis of building use is to be secured. Room utilization is not concerned with the number of pupils in the room, but with whether or not the room is actually used for class study or any other pupil activity. Room

utilization is also only concerned with those rooms which may be considered as instructional space, namely, rooms which are used for any regular or special class or conference purposes. Pupil station utilization, on the other hand, is concerned primarily with the relation of the actual number of such stations used to the number available for use. A pupil station may be defined as any seat, machine, space at a table, or proportion of space on a floor, as, for example, in the gymnasium, to which a pupil may be assigned for any period or part of a period. It is clear that pupil station utilization has reference also not only to the actual provision of equipment which has been made, but to the maximum possible equipment in all rooms with due reference to the desirable aims or purposes of the instruction which is being advanced.

In the fifty-two buildings, fifty-eight schools were being administered, for in six of them two complete schedules for different groups of children were being used. For the fifty-eight schools, the average percentage of room utilization, with the elimination of the auditorium, gymnasium, and cafeteria, was found to be eighty per cent when based upon the class periods of the schools, 71.6 per cent when based on all periods in the schedule, and 53.5 per cent when based upon a 2,400-minute week. When the use of the auditorium, gymnasium, and cafeteria were included in the room utilization analysis, the percentages became 75.4 based on class periods, 68.7 based on all periods in the schedule, and 51.8 when based upon a 2,400-minute week. A 2,400-minute week means an eight-hour day and is used by Morphet for the single purpose of reducing all of the schools to a common basis.

The total enrollment in these fifty-two school buildings was about 50,000. The present cost of replacement of the buildings would be approximately \$40,000,000. These percentages of room utilization might be interpreted as implying a twenty to 30 per cent of excess of construction in these situations. The relationship between the construction utilized and that non-utilized may be represented by the contrast between the figures \$30,000,000 and \$10,000,000.

In the building study, Morphet finds a wide range in the number of pupil stations provided for each pupil of enrollment. In one of these schools with a very small enrollment, there were nine pupil stations available for each pupil during each hour of the day. In other schools, the number of pupil stations from which each pupil might make a

choice for each period of the day ranged from one to seven. In many cases, three, four or five pupil stations were available for each pupil during every hour of the day. This abundance of pupil stations is naturally reflected in any percentage of per pupil station utilization. Morphet contrasts the average per cent of pupil station utilization in all of the schools which he studied with ten schools which were considered highly congested by the principals in charge. The results of this study as they are concerned with nine different types of rooms are as follows:

PER CENT OF PUPIL STATIONS USED IN FIFTY-TWO HIGH SCHOOLS
1926

Room Type	AVERAGE PER CENT		75 Percentile for 10 Congested Schools
	For All Schools	For Ten Con- gested Schools	
Academic Classrooms.....	56.6%	62.9%	69.1%
Study Halls.....	59.8	72.5	80.7
Libraries.....	61.8	68.8	79.4
Typing Rooms.....	48.5	56.5	59.8
Science Rooms.....	37.0	51.2	57.2
Chemistry Laboratories.....	32.8	45.4	65.9
General Shops.....	55.1	62.7	68.9
Auditoriums.....	9.2	10.9	12.0
Cafeterias.....	21.7	31.3	38.3

Even in the ten congested schools, the percentages of pupil station utilization are so low as to stimulate further investigation in this field. Even in the most highly congested schools, percentages of pupil station utilization of eighty or more are rarely secured, while percentages of fifty or less are found when special rooms, not including the auditorium, cafeteria, and gymnasium are studied.

It would be unfair to present these low percentages of utilization for schools which might be considered more or less typical without indicating the dilemma in which the high-school administrator finds himself. The modern secondary-school program emphasizes the necessity for individual care, for the extension of the curriculum, for the adaptation of the school work to the interests and special needs of the individual. In fact, the high-school principal is confronted with the problem of relating the changes, which arise out of improvement in curriculum and the adaptation to individual needs, with building conditions more or less inelastic and frequently originally created with a limited participation on the part of those who are required to administer the educational programs. Nothing which is said in

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this paper should be interpreted as implying that one hundred per cent of room utilization or that one hundred per cent of pupil station utilization is possible for any high-school building. There should be every encouragement to the high-school administrator to continue his curriculum adjustments and program of meeting individual needs. These more recently developed educational policies are, on the other hand, demanding a greater attention to the measurement of plant utilization and to the problems of building planning than was ever required under the program of ten and fifteen years ago. In fact, modern high-school administration is a high-grade form of engineering. It requires measurement of plant as well as product. It relates achievements to costs. It emphasizes the human need, but does not neglect the sources of material development.

When high schools were small, the subject matter limited, and special room needs existed in only slight degree, utilization of plant had slight significance as compared with the problem that develops out of the 1,000-pupil school to-day. Many of the practices which developed out of the old academic program are commonly resorted to to-day and affect in considerable measure the degree of utilization. It seems strange still to find some schools in which rooms are assigned to teachers with the understanding that only the classes of a single teacher are to use each room. This practice may result from the attitudes of older teachers on the staff and has, of course, the merit of permitting the teacher to be constantly in touch with his materials of instruction. It, however, is an expensive policy when considered from the standpoint of total cost to public education. Even in schools of recent construction, it is difficult to present a real solution for this problem where no special study rooms or conference rooms have been provided for teachers and students. Frequently, a small office which contains a desk and two chairs will extend the percentage of utilization of a room which makes provision for as many as thirty or forty students. Subject specialists who require special materials or equipment for instructional purposes are frequently inclined to consider that their rooms should be limited to their particular use. This, again, is a more or less traditional attitude and if full consideration were to be given to the extension of use of special rooms, a far better percentage of room and pupil utilization could be secured. High-school building utilization is also affected by the belief on the part of some administrators and teachers that the high-school program

contains indispensable features for which no betterment is possible. Among such features which are found operative even at this day are:—

- 1—The requirement that a study hall seat be provided for a very large percentage of the student body, even fifty per cent or more.
- 2—That every student must be provided a home room seat in a regular or academic classroom.
- 3—That a library is a place for the conservation of books rather than a place in which many students and many books form constant contacts.
- 4—That rooms in the basement are good enough for special classes but not good enough for the regular class type of work.
- 5—That special rooms, like music rooms, sewing rooms, lecture rooms, and others of this general character, are designed for one purpose only and do not permit of any other use.

There is also a tendency to restrict room usage very largely on the basis of character of the equipment. Very frequently it would be economical to discard the existing equipment entirely and to replace the equipment in terms of a multiplicity of uses rather than to continue on the present basis. There is also no question but that the character of past building planning vitally affects building utilization. Rooms improperly lighted, poorly painted, or rooms glazed with an unusual kind of glass, tend not to be used until most other space has been assigned. Rooms located in inaccessible parts of the building are neglected. Rooms which are inadequately ventilated and overheated tend to be used a far smaller fraction of the time than rooms in which normal conditions are to be found.

One of the problems frequently presented to our classes in administration in Teachers College is concerned with the utilization of a building of relatively recent construction. This is a two and one-half story building with the other half story below ground. The floors of the basement rooms were originally laid in battleship linoleum. The dampness of the soil has separated the linoleum from its base. Special composition floors replaced the linoleum. These basement rooms which originally cost approximately \$150,000 have had an additional replacement cost. This basement contains special rooms to a large degree. The situation is uninviting. Selections to courses given in the basement are not made. It becomes quite impossible

to justify the low utilization in the light of the great expenditure made. In this same building, a science lecture room has a room utilization of about twenty per cent. Typewriting rooms have special equipment but are used only a fraction of the day. The library was planned at a point inaccessible to study halls and, thus, results in a minimum of utilization. All in all, this building is clearly the resultant of a combination of traditional attitudes toward administration, of the failure to measure utilization, and of faulty planning in the original instance which paid little regard to the educational program to be advanced. The administrator, placed in charge of such a structure, must make the best of a poor situation. The percentage of utilization should be ascertained, the cost of alterations should be matched with the rental losses, and the building must be used as completely as possible under the circumstances. In this case, the best period for checking against inadequate utilization, i.e., at the time of original planning, was allowed to pass with only slight consideration being given to the major issues in the housing of the high-school program.

There are other phases of plant utilization which are frequently neglected or totally ignored. When the contracts for a high-school building are being let, the site has already been purchased and has probably been paid for. A study of site utilization would show that school administrators frequently pay only slight attention to the land values over which they have been given charge. It must be borne in mind that when school sites are withdrawn from the assessment rolls, the loss to the community in taxes over a period of years is considerable. The interest on investment and this tax loss are costs which the school administrator should endeavor to offset completely through an adequate program of site utilization. Contracts awarded for buildings frequently are subdivided into four parts: gross structure; heating and ventilating; plumbing; and electrical work. Equipment costs are generally treated in a separate contract. The gross structure may be developed with a maximum of waste space. Utilization studies which consider not only classroom space, as was done by Morphet, but which involve all of the space in the complete structure would present even lower percentages of utilization than those quoted by Morphet. The utilization of ventilation equipment and installation, which may amount to three per cent or four per cent of the total cost of the building, presents another problem for the

consideration of the administrator. Twenty thousand dollars, \$30,000, or \$40,000 lying idle in expensive fans, motors, and ducts should raise in the minds of educators questions concerning the desirability of the state laws which require expensive installations with a minimum of return. As discovered by Loomis¹, equipment costs have a wide range in percentage of the total cost of the building equalling eight per cent to twenty per cent of the total building investment. Here lies another difficult utilization problem for the high-school administrator. Frequently, one finds expensive stenographers' desks in type-writing rooms where ordinary tables would have sufficed, or very elaborately equipped machine shops where simpler installations would have brought about better results. The character of utilization should be a determining factor in equipment selection, and the results to be secured should be carefully contrasted with the costs involved.

If problems in utilization were given more study by those who are using school buildings, the true relationship between utilization and the original school building planning would become clear. Recently, the plans for the best school buildings erected in each county of a certain state within a period of the past five years were submitted to our office for review. It may be well to point out a few of the criticisms of these plans to show the effect of original planning upon utilization.

Case No. 1.—In this building, manual training and domestic arts have been placed in the basement. This, without doubt, will affect utilization. Excessive spaces have been given to toilet rooms and they also have been located in the basement where more rapid deterioration will seriously affect the life of the equipment. Fireproof stairwells have been provided in this building but the building has been greatly over-staired and unnecessary money has been spent for this purpose. No additions can be made to this building without destroying some feature of what has already been included in the plant. Thus, losses will be sustained with reference to future utilization as well as with regard to replacement. The building has been planned as though the auditorium were the only educational facility worthy of excellent development.

Case No. 2.—Domestic science and sewing have been placed in basement rooms, which no doubt will become damp, making them

¹Loomis, A. K. *The Technique of Estimating School Equipment Costs* (1926). Bureau of Publications, Teachers College, Columbia University.

unfit for use during part of the school day and probably during part of the school year. At least one-third more blackboard provision has been made in this building than is necessary, as utilization studies by Hart and Peterson have pointed out conclusively that school buildings have been overprovided with this equipment. Library facilities are so limited that they serve almost no adequate purpose in this high school. This, without doubt, will affect seriously the utilization of plant if a progressive administrator is put in charge. Physics and chemistry layouts have been made so extensive that the school will be over-supplied for a period of twenty years at least.

Case No. 3.—This is the plan of a small high school which probably should never have been erected. If the enrollment grows in this school, it will be very difficult to remodel or alter this building. In fact, such remodeling would necessitate the destruction of about fifty per cent of what has been developed in this plant. It is a very wasteful building from the standpoint of excessive corridor space. Its auditorium is on the second floor and is inaccessible. The stage is too small for any real school activity. In other words, there is practically no factor about this building which will permit of a high degree of utilization.

Case No. 4.—In this building interior stairways have been planned. These stairways are located in the corridor. They increase the corridor widths but do not permit of direct egress out of doors, and the runs do not conform to educational standards. This is a small high school and it has been equipped with a lecture room between the physics and chemistry laboratories. This has necessitated the reduction in size of both the laboratories. A lecture room in a school of this size is an unnecessary use of space. Locker rooms are dark and inaccessible. Shower and locker rooms for the gymnasium are most inadequate and poorly placed. In general, there are few elements in this plan which permit of commendation. Most of the conditions to be found in this plan should not be reproduced again in this state. Utilization studies made in this building, after a period of three or four years, will emphasize even more strongly the factors of poor original planning.

Case No. 5.—In this high school the inaccessibility of the gymnasium stage and the locker facilities are the most marked among many faults. It is rather difficult to comprehend how as large a sum of money could be invested in a school building as has been

done in this case with as little attention given to the actual utilization of the building and purposes for which it was planned. There is little to commend this building, either in the location of its room spaces, the frequency of its study halls, the size of its classrooms, or in the character of its stairways and corridors. This building should never have been built.

These five cases are illustrations of the poorest planning in this state. If time permitted, it would be possible to give a number of illustrations of excellent planning. The point to be made is that the problems of school utilization should not first be brought to the fore after the building has been completed, but should be thoroughly analyzed while the preliminary plans of a building are still in their pencil stage.

In building large high schools, certain types of spaces are frequently overlooked largely because of the magnitude of the problem. It is possible to find school buildings to-day in which 150 different types of rooms are planned. For example, the Madison Junior High School in Rochester has 141 different types of rooms. In fact, Strayer, Engelhardt, and Hart list, in their checking list for the planning of school buildings, as many as 492 different types of rooms or spaces which have been included in high-school buildings. The tendency in planning is frequently to include certain kinds of rooms simply because others have done it. So-called model apartments have been frequently incorporated. Model apartments in some high schools have taken up the equivalent of one and a half to two and a half classrooms. The evidence is that these model apartments are rarely used except for show purposes and for the purposes of teaching dusting. They have cost large sums of money for original construction, for the service facilities included, and for the equipment located therein. In spite of these facts, there are no doubt being built in the United States to-day large numbers of these model apartments for which the utilization will probably be so low that it can never be justified. Lecture rooms for science purposes are still made part of even the smallest high schools, and yet all studies made of lecture-room utilization indicate such a low percentage that intelligent planning requires other provision for this type of instruction. Shops are still located in new buildings so that the noise interferes very seriously with the conduct of other types of classes in adjoining rooms. This frequently causes a less utiliza-

tion of such classrooms and also points out the need for the consideration of instructional losses when rooms are being utilized under difficult conditions. The program of dramatic arts is being advanced in many high schools. This requires a stage of considerable depth. Frequently, one finds on recently developed plans stages twenty feet or less in depth, with dressing rooms of very limited dimensions cut off from the rear of the stage. Such dressing rooms are practically useless and become storage places for equipment or stage property. The total cost of these dressing rooms in high schools in the United States has been considerable. The utilization of them has been practically nil. In other words, money should not be spent on the construction of such small spaces as these if a high percentage of utilization cannot be foreseen.

In spite of all that has been written in educational literature in the past twenty years concerning the costliness and futility of base-ment space for educational and social purposes, many buildings are being erected in various parts of the United States to-day with the inclusion of a maximum of such space. The utilization in practically all of these cases will be very low and will, in no sense, be commensurate with the amount of money which is being spent thereon.

The degree, to which the inability to make additions satisfactorily to a school building affects school building utilization, is a topic for fruitful work. Very frequently, the relationship between regular classrooms and special rooms requires readjustment as students' choices and additions to curriculum bring about change. It is quite possible that the addition of a few classrooms will increase considerably the percentage of utilization. It is also possible that the addition of a large unit, such as an additional gymnasium, will also make possible a far higher degree of utilization of the plant which already exists. Provisions should be made for this in original planning, but many school buildings are being reproduced in our educational journals to-day in which no such provision has been made. A further elastic element in original planning which is frequently ignored is that which makes possible an addition to a particular department, such as the shops, the household arts, or the science section of the building. In other words, elasticity not only in room sizes but in departmental development, as well as in building development, is a highly essential element in all building planning if present as well as future utilization is to be given full consideration.

The percentage of utilization is frequently reduced for two or three school buildings because the community has overbuilt. It is quite possible to find in many communities in the country two high schools which are so close together that many of the facilities are duplicated and, hence, inadequately used in both buildings. This is particularly true with reference to the large units, such as the auditorium, cafeteria, and gymnasiums. The faults are multiplied in those communities which have built downtown high schools rather than the regional high schools. Thus utilization becomes a resultant of the original building program of the city.

There is a negative aspect of this problem of utilization which may be thought of as over-utilization. In the planning of gymnasium locker rooms, adequate space has frequently not been provided in the past. In fact, the allotment of space has often not been made in terms of the number of pupils to be provided for. Locker rooms have usually been the places where architects have economized. The result is an over-population of these rooms during many hours of the school day and the creation of conditions which are most unsatisfactory and in conflict with the purposes of the school program. Such conditions should be reflected in any study of utilization which has been made.

There have been earnest efforts made to secure a maximum of utilization through the development of duplicate or multiple use of various spaces. The community demand is frequently such that large audiences or groups of spectators must be provided for in two or three of the large units, the auditorium, the gymnasium, and the swimming pool. This has placed a great burden upon those planning the school building. Frequently a stage has been turned into a gymnasium in order to satisfy this demand for adult amusement. This practice has, however, proven to be exceedingly unsatisfactory in many cases. It is most desirable, before any combination of this kind is accepted, to consider fully the educational implications and to contrast the losses in the secondary educational program which naturally accrue to the gains which come from this extension of the use of the school plant. There are, however, many satisfactory duplicate or multiple uses of rooms which have proven to be satisfactory. The development of the cafeteria in such a manner as to make it useable for the band, the orchestra, the glee club, and even for study purposes, presents a much more satisfactory attempt to increase the percentage of utilization.

The construction of special equipment for science laboratories, making possible laboratory and lecture work in the same room, has been a commendable advance. Further analysis should be made of the equipment in household arts and in the manual arts to ascertain whether equipment serving duplicate purposes cannot be developed.

That variation in utilization is due, in large measure, to administrative skill, as well as to factors of original planning, has been evidenced from the studies which have been made in cities having two or more high schools. In a study of the six junior and senior high schools of a certain city made since Morphet's original study, it was found that the room utilization varied from fifty-four per cent in one school to seventy-six per cent in the school with the highest rank, and that the pupil station utilization varied from twenty-five per cent in one school to sixty-one per cent in the school of highest rank. In this community, it was argued by the principals that the school buildings were overcrowded and yet three of the six schools had a lower percentage of room utilization than the average of Morphet's fifty-eight high schools, and three of the schools had a lower per cent of pupil station utilization than the average of Morphet's fifty-eight high schools. It was interesting to note that the three schools of the first group were not the same as the three schools of the second group, and that five out of the six schools were represented in percentages below the average. In this community, these principals had only a slight part in the planning of the original structures. They, however, had made no attempt to measure utilization. They had simply expressed general judgments concerning the congestion in their buildings. A careful analysis of their schools indicated a wide variation in the emphasis which the principals were placing upon the utilization aspect of the plans which had been placed in their charge.

There are many other aspects to the problem of utilization. Each principal who thoroughly analyzes his own situation will bring to light possible changes which will result in a far better use of the physical plant. He and his staff must approach the problem without any hampering traditions and without the fear that radical changes will necessarily upset the program which is being advanced. Class size must be thoroughly studied. The part which assistant teachers should play in large groups in charge of a master teacher should also be frankly discussed. The alteration of those spaces which are infrequently used should be considered, and the effect that the character of

the maintenance and operation programs has upon utilization should be thoroughly analyzed. Without doubt, such procedures will result in the lessening of demands for additions or for new construction when the facilities are still available and are not being utilized to a maximum. The high-school principal should, on his own initiative, accept the responsibility for this type of study in existing buildings. He and his staff should also have a major part in the planning of new high-school buildings in his community. As high-school principals continue to prepare themselves to studying the physical plant and the relationship of spaces to one another, and are given the opportunity of participating from the beginning in the planning of new structures, large sums of money will be saved and the investments which are made will result in a far greater productive return.

A New Conception of Commercial Education, a paper by Paul S. Lomax, Professor of Commercial Education of New York University, was next presented.

A NEW CONCEPTION OF COMMERCIAL EDUCATION

PAUL S. LOMAX,

PROFESSOR OF COMMERCIAL EDUCATION, NEW YORK UNIVERSITY,
NEW YORK CITY

Business is to be regarded as a primary social institution along with the other primary social institutions of the home, the church, the school, the government, and organized recreation. Business, as a social institution, becomes the chief *organized means* of utilizing our social resources of labor, capital, natural resources, and productive education for the gratification of the nine classes of human wants: food, shelter, clothing, education, recreation, government and community control, safeguarding of health, and art forms. Business, as the chief organized means of gratifying these human wants, forms the groundwork of our civilization.

This means that the new conception of business education is to make its cornerstone a study of the social mission of business—of the relationships that business has to the other social institutions of home, church, school, government, and organized recreation, and of their relationships to business. Business, as a single agency, does not seek alone to perform the gigantic task of gratifying human wants, but it does seek to do so in coöperation with the other social agencies. Indeed, it may be said that all forms of institutional life, to achieve

The construction of special equipment for science laboratories, making possible laboratory and lecture work in the same room, has been a commendable advance. Further analysis should be made of the equipment in household arts and in the manual arts to ascertain whether equipment serving duplicate purposes cannot be developed.

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There are many other aspects to the problem of utilization. Each principal who thoroughly analyzes his own situation will bring to light possible changes which will result in a far better use of the physical plant. He and his staff must approach the problem without any hampering traditions and without the fear that radical changes will necessarily upset the program which is being advanced. Class size must be thoroughly studied. The part which assistant teachers should play in large groups in charge of a master teacher should also be frankly discussed. The alteration of those spaces which are infrequently used should be considered, and the effect that the character of

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Business is to be regarded as a primary social institution along with the other primary social institutions of the home, the church, the school, the government, and organized recreation. Business, as a social institution, becomes the chief *organized means* of utilizing our social resources of labor, capital, natural resources, and productive education for the gratification of the nine classes of human wants: food, shelter, clothing, education, recreation, government and community control, safeguarding of health, and art forms. Business, as the chief organized means of gratifying these human wants, forms the groundwork of our civilization.

This means that the new conception of business education is to make its cornerstone a study of the social mission of business—of the relationships that business has to the other social institutions of home, church, school, government, and organized recreation, and of their relationships to business. Business, as a single agency, does not seek alone to perform the gigantic task of gratifying human wants, but it does seek to do so in coöperation with the other social agencies. Indeed, it may be said that all forms of institutional life, to achieve

their respective social missions in an economically constituted world, must be by necessity forms of business organization. Business thus becomes a powerful instrumentality of achieving an enduring and enlightened civilization. Bookkeeping and accounting, stenography, typewriting, retail salesmanship, numerous forms of clerical practice (to which Professor F. G. Nichols of Harvard University has given special emphasis), along with applied mathematics, English, social studies, and physical science, all become so many golden means, but only means, of enabling business to carry on its social mission in terms of efficient production, distribution, consumption, and conservation of economic goods and services.

To confine students of business education only to the acquirement of a knowledge and skillful use of these various techniques is not enough; the students should be taught to understand and appreciate the advantages and limitations of these techniques in the great civilization-building task that the social institution of business should play in its varied, complex, and primary relationships with the other social institutions. We should seek to have *all* our students who are alike *citizens* of the home, church, school, government, business, and organized recreation, to be alike *business-minded* in all these institutional experiences and relationships. As we thus tend to realize this *oneness* of business education with all education in terms of the *oneness* of business with all life experiences, we shall tend to develop real educative power—the ability of the student to control the circumstances of life, the ability to conform to and transform the social environment, the ability to apply knowledge, habits, and ideals to the effective solution of life's problems.¹

Clyde R. Miller, Director of Educational Service, Teachers College, Columbia University, in part read his paper on *Too Many Teachers*.

TOO MANY TEACHERS

COLUMBIA UNIVERSITY

DIRECTOR BUREAU OF EDUCATIONAL SERVICE, TEACHERS COLLEGE,
COLUMBIA UNIVERSITY

Teacher training institutions in many sections of the United States are engaged in a mass production of teachers which, conducted without reference to the demand, is resulting in harmful over-production.

¹This new conception of business education is developed in the 1928 Year-book of the Eastern Commercial Teachers' Association, Foundation of Commercial Education, (253 Lexington Avenue, New York City).

Lengthening of normal training courses from one and two years to three and four has been a salutary check on this over-production in recent years but it has not been sufficient to eliminate it.

There are thousands of young persons—chiefly young women—trained to teach for whom there are no positions open and small likelihood, in many cases, of employment as teachers.

This is particularly true in cities and especially in those operating teacher-training institutions. In New York City there are some 2,600 persons holding teaching certificates for whom there are no positions. This figure does not take into account those on the substitute list who are lacking employment in the profession for which they trained.

The city of Cleveland in recent years discovered that its tax-supported school of education was producing many more teachers than the community could absorb. This school has become a part of Western Reserve University within the past year, but is, I understand, still supported in part by the Cleveland Board of Education. Such a merger was a wise step and should take place in other communities. Probably the best way to solve the troublesome problems involved in the state supported normal school at Kent, Ohio, would be to abandon it as a normal training institution and turn the plant over to the University of Akron or to Western Reserve University to use as a unit of one of their colleges.

The school at Kent is typical of a number of similar schools in different states. Politics has entered into the operation of many of these tax-supported normal schools. It would be difficult, in most cases, by reason of this fact, to bring about their abandonment as teacher-training institutions and their conversion to liberal arts and other colleges for which their is increasing demand.

However, the element of politics, bad as it may be, is not the chief evil in the operation of normal schools for which there is no need and in the continued operation of other schools with a larger enrollment than conditions justify. The chief evil is the lack of co-ordination among the various teacher-training institutions to arrive at a program planned to produce something like the number of teachers actually needed.

Every teacher-training institution exists as an entity. Many seek the largest enrollment they can get without consideration of the fact

that there will be no teaching positions for large numbers of their graduates.

The consequences of this over-production are serious, not only for the young persons entering the profession but for those already in it. The salaries of all who have positions in teaching or who obtain such positions are not likely to go to higher levels so long as the supply of teachers greatly exceeds the demand. The inexorable economic law holds here quite as much as it does elsewhere. It's quite as bad, economically, to produce an over-supply of 150,000 teachers as it would be for Ford to produce an over-supply of 150,000 autos—probably worse. Factories that don't control production to meet the demand are likely to go into bankruptcy. Teacher training institutions don't go into bankruptcy chiefly because they are tax supported. The public pays the bills. But this over-production of teachers is a sin against the public which pays for training it does not need, and a sin against the children in the schools who, as one of the results of over-supply receive the services, in only too many cases, of under-paid teachers doing half hearted work.

The large number of women trained for and ready to enter teaching at salaries on which married men can not support their families is depriving American public schools of the services of men teachers.

Of the comparatively few men in the teaching profession the majority prepare for administrative posts in order to justify their continuing in the profession.

No principal or superintendent is going to pay a man \$3,500 or \$4,000 a year as a teacher if he can get a woman just as well or better qualified for \$3,000 or less. The number of such women is vastly greater than the number of well qualified men in the profession.

But not only do the women tend to eliminate men from teaching; they eliminate other women who are trained for the profession. By reason of over-production on the part of normal schools, many of the most competent women are working for salaries lower than they should have and still others have no jobs at all.

The cause of over-production of teachers is familiar to us all. Ten years ago when teachers were scarce as a result of war prosperity, every agency having to do with the preparation and placing of teachers put on a campaign to induce young men and women to

enter the profession. Groups of experienced teachers joined in this campaign. To convert young people to teaching was the "professional" thing to do.

Despite the fact that the nation no longer is confronted with a scarcity of teachers, some normal schools and teacher training schools act as if they were not aware of the fact.

A teachers' agency man told me recently that for six positions one superintendent recently had 2,800 applicants. It is difficult to believe that his information is correct, yet I know that in the city of Cleveland a year ago, there were in excess of five thousand applications on file—applications which probably will remain on file for a long time to come. Many of these applicants, doubtless, are employed elsewhere; and many aren't.

In the past ten years the schools of education throughout the country have increased rapidly in enrollment. A few new ones have been founded, while the old ones have grown into important colleges. Several state universities today have 2,000 in their colleges of education.

A few years ago these colleges were departments with one or two professors and two or three instructors.

It is obvious there has been little or no planning on the part of educational institutions to ascertain the future demand for teachers. The campaigns initiated ten years ago are still resulting in over-supply.

It is not fair to young people who need advice about training for life careers to urge them to enter teaching when it is likely that for many of them there will be no positions. It certainly is not fair to those communities which are paying for the education of future teachers to maintain larger normal schools when the graduates of those normal schools will not be needed as teachers in those communities. Those of us responsible for this condition ought to recognize our folly and take steps toward reform. Teachers have been their own worst enemies. They have flooded the profession with thousands of aspirants to teaching positions.

The physicians of this country have been wiser. They have seen to it that there is not an over-supply of physicians. They have done

this through the admirable means of making the requirements of training so rigid that only the most competent men and women can get through medical school. Perhaps they have made them too rigid, but certainly, in principle, the doctors are right. The same sort of selective process has been urged for teaching, and in certain laudable instances has been followed. Better selection of students and lengthening of normal courses have become measures of real value. In general, however, too little has been done to keep the number of teachers down to actual needs and to see that those who are prepared present best types in personality, character and intellect.

Professor H. F. Clark of Teachers College has advocated careful studies, national in scope, to determine the kind and amount of education likely to be needed during the immediate future. On the basis of such studies some fairly accurate advance estimates might be made of the number of teachers likely to be needed during the next ten years, say. The nation's teacher training program could be adjusted accordingly.

Certainly, at the present time, there is scant justification for the continued operation of many teacher training schools. Especially is this true in view of the fact that every liberal arts college is, in a measure, a teacher training school, too.

Doubtless the teachers themselves in coöperation with the various state departments and the National Bureau of Education are the ones to take the initiative in adjusting the supply of teachers to meet the expected demand. The teachers can act through their local associations and through the National Education Association just as the physicians have acted through local academies of medicine and through their own national organizations.

It seems certain that methods followed by unions of craftsmen to avoid over-supply of workers are not the methods to be followed by teachers, physicians, and members of other professions. However desirable a union may be in the case of printers, engravers, or other skilled workers whose product is more or less standardized, it is not desirable in the case of those workers comprising the professions. Nevertheless, it would be of advantage both to teachers and to the public if teachers had more of the objective attitude toward economic questions that is found in some unions.

A great many of the arguments for increase in teachers' salaries have been based on grounds purely sentimental and not economic. These arguments have availed little or nothing. It can be expected that they will be of continued futility—sentimentalizing will not sell better teaching to the public.

First of all, there must be, on the part of teachers and their professional associations in teacher-training institutions, a clear understanding of the economic effects of supply and demand. Secondly, there should be a carefully planned program to avoid present overproduction which is resulting in wasted time and money of both institutions and individuals, and bringing to many young men and women disappointment and disillusionment. At the present time larger emphasis should be placed on the training of teachers in service and much less on campaigns to get young folk to enter the teaching profession. With adult education becoming an increasingly large factor in the American educational program, there is certain to be larger demand for teaching of high school and college subjects. Many of the teachers already in service will be used in adult education during the years to come.

However teachers who are at present employed should not let any zeal for further training cause them to resign positions to go to teachers colleges. It is possible and in many cases probable, that after they have received the extra training, they may find no positions open for them. Teachers in service who want further professional training would do well to get it in the form of extension courses, or during a leave of absence at the end which they could return to their regular positions.

The main consideration, of course, in training of teachers and in improving the economic welfare of teachers is not the teachers themselves; nor the teacher-training institutions; it is the children in our schools. They ought to be taught by the men and women who approximate, as nearly as possible, the ideal personal and mental characteristics of the best teacher. More and more money should be invested in such teachers and considerably less, I believe, in elaborate and unnecessarily expensive school buildings.

At the present time only too few such men and women can afford to remain in teaching. This is particularly true of the men. There is too much truth in the charge that American schools are feminized.

Children in the elementary grades as well as those in high schools ought to have *some* contact with men teachers—and those men teachers should not be mediocrities who could not succeed in other lines of business and professional work. In other words, when we determine the numbers of teachers, we ought at the same time pay more attention to the quality and to the need for more good men in the profession.

The luncheon program was closed with a chalk-talk, entitled *Hoots and Quacks* by Ben F. Hammond of *The Wichita Eagle*, Wichita, Kansas.

While the members were marking the ballot below :

BALLOT

NATIONAL COUNCIL

Vote for Four

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|-------|--|
| [] | H. V. KEPNER
Principal West High School,
Denver, Colo. |
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| [] | ARTHUR M. SEYBOLD
Principal Thomas Jefferson Junior
High School, Cleveland, O. |
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| [] | G. A. F. HAY
Principal Junior High School,
Webster Groves, Mo. |
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| [] | W. H. NICHOLS
Principal Union High School,
Palo Alto, Cal. |
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| [] | WYLIE A. PARKER
Principal Forest Avenue High School,
Dallas, Tex. |
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| [] | V. K. FROULA
Principal Roosevelt High School,
Seattle, Wash. |
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[] L. W. BROOKS
Director Secondary Education,
Wichita, Kans.

[] WILLIAM E. WING
Principal Deering High School,
Portland, Me.

the nominating committee brought in its report :

President: MILO H. STUART
Principal, Arsenal Technical High School,
Indianapolis, Indiana

First Vice President: M. CHANNING WAGNER
Principal, High School, Wilmington, Delaware

Second Vice President: W. F. WARREN
Principal, High School,
Durham, North Carolina

EXECUTIVE COMMITTEE:

ARTHUR SEYBOLD
Principal, Thomas Jefferson Junior High School
Cleveland, Ohio, (in charge of the
Junior High-School Section).

JOHN W. HARBESON
Principal Junior College, Pasadena, California
(in charge of Junior College Section).

President Kadesch appointed as members of the Committee on the Observance of the Three Hundreth Anniversary of American Secondary Education: Patrick Campbell; L. W. Brooks; F. L. Bacon; Ernest G. Hapgood; W. L. Ewing; Merle Prunty; Jesse B. Davis; Bancroft Beatley; Thomas R. Briggs; Charles H. Judd; W. J. Cooper; George Wiley; John K. Norton; Joy E. Morgan; J. B. Edmonson and H. V. Church.

The balloting for members of the National Council of the National Honor Society resulted as follows: H. V. Kepner; Arthur M. Seybold; L. W. Brooks; W. E. Wing.

JUNIOR HIGH-SCHOOL SECTION

FIRST SESSION

On the afternoon of Tuesday, February 26, at 2:15 P.M., the Junior High-School section was held in the crowded quarters afforded by Parlor K, Winton Hotel, Principal E. H. Kemper McComb of Emmerich Manual Training High School, Indianapolis, Indiana, presided.

L. W. Reese, State Supervisor of High Schools of Ohio, read his paper, *A Study of the Junior High Schools of Ohio*.

A STUDY OF THE JUNIOR HIGH-SCHOOLS OF OHIO

L. W. REESE,

STATE SUPERVISOR OF HIGH-SCHOOLS, COLUMBUS, OHIO

Introduction.—In 1928 C. A. Stingley and myself made a study of subject offerings in Ohio junior high schools. Mr. Stingley made the greater contribution in this study. The speech is in a large measure a condensation of his extended study.

In this study we are concerned only with junior high schools of Ohio. The speaker purposes to show the present status of the development of the organization of the junior high-school curriculum, with particular reference to constants, variables, and time allotments, in ninety-five representative junior high schools. The data used in this study were obtained by means of a personal questionnaire sent out, to junior high-school principals, from the State Department of Education.

For purposes of this study the term junior high school includes grades seven, eight, and nine, either in a six-six or six-three-three type of school organization. Of the ninety-five junior high schools studied, fifty-one belonged to organizations of the six-six type; forty-four belonged to organizations of the six-three-three type. (In Ohio there are 209 six-six schools, and 111 three type.) Much of the information from schools belonging to each type has been recorded separately for purposes of comparison.

The definition of a constant was adapted from that used by Tryon and others in a study made in 1926.¹ "Constants are interpreted as those subjects required of all pupils even where the multiple curriculum plan is followed. Where the multiple curriculum plan is in effect, subjects that are not common to all curricula are, of course, not required of all pupils; hence these subjects are to be listed as variables." In order that the data regarding industrial arts and home economics may have a more practical meaning, it has been advisable to make two exceptions to the above definition. Work in industrial arts is considered as a constant if it is required of all boys. Work in home economics is considered as a constant if it is required of all girls. Otherwise, work of this nature would be considered as variable since it is not required of all pupils.

Variables are interpreted as those subjects from which pupils may elect work in addition to that which is required. Variables and electives are used synonymously.

Time allotments are given in terms of the actual number of minutes per week devoted, in the time schedule, to the various subjects in the program of studies.

For convenience in the tabulation and presentation of data, all subject material has been arbitrarily divided into twelve groups, referred to in this study as subject groups.² The subjects, which are listed under each subject group, are referred to as subject divisions of that subject group.

The present status of English offerings with reference to constants, variables, and time allotments.—The general heading English includes ten subject divisions which are as follows: reading and literature, grammar, composition, spelling, penmanship, language, general language, library instruction, oral English, and speech. The term English, as applied to any particular school, may include any combination of the above subject divisions.

It is significant to note that English is the only subject that is included as a constant, in each of the ninety-five schools, throughout the seventh, eighth, and ninth years. This is in accordance with the

¹Tryon, R. M. and others. The Program of Studies in Seventy-eight Junior High-School Centers. *School Review*. XXXV (1927). p. 96.

²Refer to Questionnaire in Appendix.

general notion that the language of the mother tongue should be required of all pupils.

Table I illustrates the degree of variation and uniformity in the amount of time allotted to English. The time allotments are based upon the total number of minutes per week devoted to English subjects in each school.

The greatest variation in time allotment appears in low seven, one school provides 112 minutes per week to English and two schools provide 600 minutes per week each to English. The difference of 488 minutes in the weekly time allotment can be explained somewhat by the fact that the two schools requiring 600 minutes reduce this allotment to 300 per week in high seven. The school with the low time allotment of 112 minutes does not increase that allotment until the ninth year.

The variation in the amount of time allotted to English decreases from the seventh to the ninth year. In the eighth year the variation amounts to 383 minutes per week. The variation in the ninth year, as shown in Table I, is the result of variable offerings in oral English, speech, library instruction, spelling, and penmanship. The variation, in the time allotted to required English only, is 160 minutes per week.

The median time allotment remains practically the same in the seventh and eighth years. From the eighth to the ninth year there is a decrease of 66 minutes per week in the median time allotment.

The present status of social studies with reference to constants, variables, and time allotments.—Social studies include a broad field of subject matter as is indicated by the following fourteen subject divisions: social science, government civics, vocational civics, community civics, United States history, ancient history, European history, geography, commercial geography, current events, Ohio history, world history citizenship, and Constitution.

In twelve schools the term social science was used to indicate work in social studies. This indicates that there is a desirability for the formulation of a new and more unified course in social studies. In regard to such a course Calvin O. Davis has the following to say.¹

¹Davis, Calvin O. *Junior High School Education*, p. 162-163.

This new course should deal systematically with current social questions and practices. It should contain elements of geography, civics, sociology, economics, political science, vocational activities, avocational interests, current events, and other matters of human interest. Let the course be called citizenship, social science, or whatever name seems most appropriate.

The following statement by Thomas W. Gosling expresses a similar sentiment:¹

If we can reorganize such materials as we have in geography, in history, and in civics, and present these new materials in a manner that will be in harmony with the laws of learning . . . we shall have done as much as we can do for the present.

Although social studies ranks among the first as a subject included in the core curriculum it is not included in all schools in either the seventh, eighth, or ninth years. Only seventy-five per cent of the schools provide social studies in the ninth year. This is a decided decrease in comparison with the number of schools offering it in the eighth year.

The extent of variation and uniformity in the time allotted to social studies is shown in Table I. Work in social studies is required in the seventh and eighth years with the exception of three schools that provide variable offerings in geography and community civics. In the seventh and eighth years, the variation in time allotments are respectively 765 and 570 minutes per week. In these two years the variation is based upon required work in social studies. In the ninth year the variation of 820 minutes per week is the result of one school providing three variable offerings in social studies. The variation, based upon required work in social studies, is 465 minutes per week in the ninth year.

The degree of variation in time allotments to social studies is much greater than in the case of any other subject group. This is to be expected, due to the fact that practically all of the subject divisions of social studies are offered in themselves as separate subjects;

¹Gosling, Thomas W. *The Social Studies in the Junior High School. School and Society*, XVI (1922), p. 623-627.

thereby increasing the possibility of variation, by different schools organizing their offerings in different semesters.

The time allotment in the large majority of the schools is included within the limits of 220 and 539 minutes per week. The point where the greatest uniformity occurs is within the interval of 220-259 minutes. There is also a tendency to concentrate in the 300-339 and 420-459 intervals. In fact, over fifty per cent of the schools offering social studies, in any year, are found to be included in the three intervals mentioned above.

The median time allotment decreases from the seventh to the ninth year. The decrease in the median time allotment in the seventh to the eighth is 67 minutes per week, and from the eighth to the ninth the decrease is 58 minutes per week.

Social studies receive a greater amount of time than any of the other subject groups. In the seventh and eighth years approximately twenty per cent of the time is devoted to instruction in social studies. In view of the fact that there is a shortage of time, especially in these years, the time allotted to social studies could well be reduced. Some schools have already accomplished this by adopting a unified course, called social science. This is the most logical way because it not only reduces the time allotment but at the same time it meets the need of a greater interrelation of the material included in the social studies.

This proposal of combining all of the social studies into a unified course has the support of Davis and Gosling. Statements¹ by these men appeared at the beginning of this speech. They specifically advocate the formulation of a general or unified course in social studies.

The present status of mathematics with reference to constants, variables, and time allotments.—All offerings of mathematics are limited to the four following subject divisions: arithmetic, algebra, general mathematics, and trigonometry. Commercial arithmetic is listed with commercial subjects. Mathematics ranks second only to English in the number of schools providing it throughout the three years. All schools offer mathematics as a required subject in the seventh and eighth years. With the exception of three schools, it is universally provided, either as a constant or a variable, in the ninth

¹Page 3-4.

year. It is to be noted, however, that the three schools not offering either of the above four subject divisions, provide commercial arithmetic instead.

The variation of time allotted to mathematics, as shown in Table VII, is much less than in the case of English and social studies. Yet this variation in the seventh and eighth years is relatively large considering that it is based upon only one offering in mathematics. In these years the variation in the time allotted to required mathematics is 248 minutes per week. In other words, some schools are providing three times as much time to mathematics as others. In the ninth year, the variation of 400 minutes per week is caused by each of four schools providing two offerings in mathematics; two schools offering algebra and general mathematics as variables and two schools offering arithmetic and algebra as variables. The variation as to required mathematics alone, is only one hundred minutes per week in the ninth year.

Although there are extreme variations in the case of some schools, there is also a marked degree of uniformity in time allotments. In fifty-eight per cent of the schools the time allotments fall within the limits of 200-239 minutes per week. Other points of concentration occur within the intervals of 240-250 and 300-319 minutes per week.

The median time allotments in each year remain practically the same with a slight tendency to increase from the seventh to the ninth year.

In the eighth year, arithmetic and general mathematics hold the same relative position as in the seventh year, with a tendency for more schools to offer general mathematics and fewer schools to offer arithmetic. In addition algebra is offered in low eight in one school and in high eight in two schools.

Algebra is the outstanding offering in mathematics in the ninth year being offered in eighty-six per cent of the schools. Of the eighty-two schools offering algebra in the ninth year, twenty-seven offer it as a required subject or constant and fifty-five offer it as a variable. Junior high schools in the six-six type of school organizations offer algebra more consistently as a variable than those in the six-three-three type of school organization. General mathematics is continued,

in the ninth year, in only twelve schools. The following statement¹ by Glass explains the scarcity of general mathematics and the prevalence of algebra in the ninth year.

General mathematics has been widely adopted by the junior high schools as a required course for the seventh and eighth years. It is, however, abruptly abandoned in the ninth year for the exclusive algebra course largely because of traditional practice and college-entrance requirements. This condition will be remedied . . . , but a consistently administered course of general mathematics in the three years of the junior high school should not be forced to await the slow development that will come with the lapse of time when it can be more rapidly accomplished by a long needed and inevitable change from a four-year to a three-year college-accrediting standard.

Arithmetic is continued, in three schools, in low nine and in four schools in high nine. Trigonometry is offered as a constant, in upper nine, in one school.

This study brings out the fact that there is a decided shift from arithmetic and general mathematics in the seventh and eighth years to algebra in the ninth year. This is undoubtedly due to the influence of college entrance requirements. The writer favors Glass's proposal of a three-year college entrance standard and a consistently administered course in general mathematics throughout the seventh, eighth and ninth years. This would permit the ninth year to become a more integral part of the junior high school. The organization and presentation of the ninth year course in general mathematics is more in keeping with the nature of adolescent youth than that of the traditional algebra course.

The Present Status of Agriculture with Reference to Constants, Variables, and Time Allotments.—Agriculture includes the five following subject divisions: general agriculture, farm crops, animal husbandry, vocational agriculture, and horticulture.

Agriculture as a subject group receives the least amount of attention, considering the number of schools that offer it throughout the entire three years. Agriculture is given the most attention in the last half of the eighth year, where twenty-five per cent of the schools make provision for it.

¹Glass, James M.

There is a considerable variation in the time allotted to agriculture as shown in Table X. The variation in the seventh and eighth years is due to one school providing 300 minutes per week to general agriculture as a variable. This makes the variation to required agriculture 180 minutes per week. The extreme variation is shown by the fact that, in the seventh and eighth years, five times as much time is provided in some schools as in others. In the ninth year the variation in time allotments increases. This is to be expected for two reasons: all offerings are variable, and some schools provide as high as three separate offerings.

The medium time allotments remain practically the same in the seventh and eighth years. In the ninth year it is increased to 444 minutes per week. Laboratory periods, in connection with agriculture, account for this increase.

An inspection shows that general agriculture is the most popular offering, especially in the seventh and eighth years. In fact, with the exception of one school offering farm crops, it is the only subject division of agriculture offered in these years. In the ninth year general agriculture and farm crops rank first, with a few stray offerings in animal husbandry, vocational agriculture and horticulture.

It is one of the duties of the junior high school to make certain adjustments in its program so that it may contribute more definitely to the social needs of the particular community in which it is located. Whether or not agriculture is included in the program of studies should largely be determined by such immediate community demands that may arise in non-urban districts. However, it is sometimes advisable to provide courses in gardening, horticulture, etc., in urban communities. The fact that agriculture is more often provided in rural sections indicates that the above principle has been followed in providing work in agriculture in the program of studies.

The Present Status of Science Offerings with Reference to Constants, Variables, and Time Allotments.—The term science represents a subject group, which includes the five following subject divisions: general science, biology, nature study, physical geography, and physiology.

The emphasis given to science offerings increases very rapidly from the seventh to the ninth years; at the beginning of the seventh year only fifteen per cent of the schools provide any work in science

while, in the ninth year, science is provided in ninety-nine per cent of the schools.

The variation in the weekly time allotments devoted to science are illustrated in Table V. The variation, in the seventh and eighth years, if 257 and 258 minutes per week respectively, are based upon required science. In the ninth year the variation is somewhat greater. This is due to the fact that some schools provide two offerings in science. This situation occurs in eight schools; four schools require general science and offer biology as elective, and four schools offer both general science and biology as electives. The variation in the time allotted to required science, in the ninth year, is one hundred minutes per week.

Science is coming, more and more, to be included in the seventh and eighth years, especially as a required subject. The relatively small number of schools offering science and the general lack of uniformity in time allotments indicates that, in the seventh and eighth years, the place of science has been very uncertain. An interesting comment by James M. Glass touches directly upon this point. "It is encouraging, therefore, to note the experimentation which is being carried on in adapting science courses to the seventh and eighth year pupils. It is indicative of a general purpose to add science to the core curriculum of the junior high school." In the ninth year the degree of uniformity becomes very marked. Fifty-two per cent of the schools are included within the limits of 200-239 minutes per week. A degree of uniformity is again noted in the interval of 300-319 minutes per week.

The median time allotment almost doubles from the seventh to the ninth year. The variations in the median time allotment between the seventh and eighth, and the eighth and ninth years are respectively 87 and 27 minutes per week. As far as time allotments are concerned, science in the eighth and ninth years bears a close relation, while in the seventh year the median time allotment is greatly reduced.

With the exception of four cases, science is provided as a constant in the seventh and eighth years. In the ninth year there is a slight tendency in favor of offering science as a constant. General science, in the ninth year, is greatly favored as a constant in schools belonging to the organization of the six-six type, while in schools of the six-three-three type of organization it is favored as a variable. Biology,

with one exception, is confined entirely to the ninth year where it is emphasized as a variable in both types of junior high schools.

The average time allotments devoted to general science increases from the seventh to the ninth year. In the seventh and eighth year general science is provided a greater time allotment in schools of the six-three-three type of school organization, while in the ninth year, schools in the six-six type of organization provide a greater average time allotment to general science. Biology, as a variable in the ninth year, receives practically the same average time allotment in both types of junior high schools; as a constant, the average time allotment is 61 minutes per week greater in the organization of the six-six type. In the case of nature study, physical geography, and physiology the average time allotments represent so few schools that they are of little significance.

Science work should be provided a definite place in the core curriculum of the junior high school, especially in the seventh and eighth years. At this particular time, many questions concerning life and our physical environment are looming high in the minds of adolescent boys and girls. Consequently, this is the most appropriate time to provide them with information which will enable them to scientifically answer many of their questions and at the same time furnish a background for further scientific study.

Courses in general science in the seventh and eighth years can well be followed by biology in the ninth year, especially for those pupils who show an inclination to further pursue science work.

The Present Status of Industrial Arts with Reference to Constants, Variables, and Time Allotments.—Industrial Arts incorporates a wide range of subject material in the eleven following subject divisions: practical arts, mechanical drawing, general shop, manual training, printing, sheet metal, auto mechanics, wood working, electricity, machine shop, and pattern and cabinet making.

In this part constants are defined as those subjects required of all boys. The fact that industrial arts has found its way into a large majority of the junior high schools is in keeping with the following statement¹ expressed by Charles H. Judd: "There is a new spirit in

¹Judd, Charles H. Fundamental Educational Reforms. *Elementary School Journal*, XXIII (1923), p. 336.

elementary education; it is the spirit of attention to practical needs. It has slowly but surely penetrated the conservatism of the course of study." Work in industrial arts, in the ninety-five schools included in this study, is offered in seventy-six per cent of the schools in the seventh year, in eighty-two per cent of the schools in the eighth year, and in eighty-seven per cent of the schools in the ninth year.

The content of Table VI points out the existence of a wide variation in the amount of time provided to work in industrial arts. The provision of a number of variable offerings by some schools accounts for the extreme variations. For example, in the ninth year one school provides 4,000 minutes per week to instruction in industrial arts work; eight separate offerings provided as variables in the ninth year. With one exception each of these eight offerings had been required in the seventh or the eighth year, on reduced time allotments. From the standpoint of exploration and provision for individual needs, this particular school has an exceptionally well organized program of industrial arts work. Being located in a manufacturing and industrial center, this school has evidently responded to definite community needs.

Variation in the time allotments to required work in industrial arts is also significant from the standpoint of the pupil; in the seventh, eighth, and ninth years the variations are respectively 385, 385, and 240 minutes per week.

The median time allotments increase from the seventh to the ninth years. It is to be noted, however, that the increase from the seventh to the eighth year is only 34 minutes per week, while the increase from the eighth to the ninth is 202 minutes per week.

In the seventh and eighth years there is a general tendency to provide industrial arts as required work. However, in the case of printing, sheet metal, and wood working the work is elective in a greater percentage of the schools. In the ninth year, with the exception of two cases, all offering the various divisions of industrial art work is greatest in schools in organizations of the six-three-three type. This also indicates that a greater variety of subject offerings are provided, better enabling them to administer to the individual needs of the pupil. Some of the subject offerings which have been most recently introduced, as indicated by the relatively small number of schools providing for them, are: printing, sheet metal, auto mechanics,

wood working, electricity, machine shop, and pattern and cabinet making. Schools in organizations of the six-six type are smaller and are handicapped in many ways. The lack of space and equipment prevent them from providing a variety of offerings.

A very satisfactory plan of organizing industrial arts work is already in use in many junior high schools. The plan is essentially this: training in as many as possible of the industrial activities is provided as required work in the seventh and eighth years with reduced time allotments. In the ninth year the same activities are provided with greatly increased time allotments.

According to the plan, industrial arts work provides an excellent opportunity for exploration and consequent vocational guidance. The pupils who do not enter any of the industrial vocations have gained concrete experiences which will stimulate interest in subjects related to other vocations. Those who do enter some industrial vocation have the advantage of discovering their fitness for it and are also provided with a background of training which will contribute directly to success in their chosen vocation.

The Present Status of Offerings in Home Economics with Reference to Constants, Variables, and Time Allotments.—A great variety of subject material is represented in the twelve following subject divisions of home economics: household arts, cooking, sewing, foods, clothing, sanitation, child care, costume design, textiles, millinery, house management, and health and nutrition. In the case of home economics constants are defined as those subjects which are required of all girls.

The introduction of courses in home economics into the junior high school has paralleled the introduction of industrial arts courses. The same motive prompted the development of the two types of work. That the development has been simultaneous, is shown by the fact that practically an equal number of schools, in each year, has made provision for home economics and industrial arts work.

The variation in time allotments, as shown in Table VII, is much less than in the case of industrial arts, and likewise, is the result of the variable offerings. The variation in the ninth year is the greatest; two schools provide 90 minutes per week and three schools provide 900 minutes per week. Similarly the variation in the seventh and eighth years is caused by certain schools providing more than one

offering in home economics. It is to be kept in mind, however, that relatively few schools provide more than one offering in any half year. The variation in time allotted to required work in home economics in the seventh, eighth, and ninth years are respectively 342, 330, and 330 minutes per week.

Uniformity in the time allotments in the seventh and eighth years exists to the extent that sixty-five per cent of the schools offering home economics are included within the limits of 60-219 minutes per week. The greatest point of concentration being in the interval of 100-139 minutes per week. In the ninth year fifty-nine per cent of the schools offering home economics fall within the intervals of 300-339 and 420-459 minutes per week. The majority of these schools are included in the latter interval. These facts indicate that there is a tendency toward agreement in the matter of time allotments to home economics as a subject group.

The median time allotments in each year bear a close relation to the median time allotments in industrial arts. The variation in the median time allotments from the seventh to the eighth, and the eighth to the ninth are respectively 50 and 215 minutes per week. The increase of 215 minutes per week from the eighth to the ninth year presents rather an abrupt increase in comparison with the increase of fifty minutes per week from the seventh to the eighth year.

There is a strong tendency to offer home economics as a constant in the seventh and eighth years. In general the ratio of constants to variables is three to one. In the ninth year the ratio of constants to variables is one to twelve. The sudden shift from constants to variable offerings is again noted here.

Home economics, like industrial arts, has an important place in the progress of studies as a means of helping to realize the specific objectives of the junior high school. Although the work in home economics is more limited than that of industrial arts, the values derived from it are much the same. The present tendency to broaden the scope of the work in home economics is very desirable. The organization of the work as constant in the seventh and eighth years and as variable in the ninth year offer a greater possibility of accomplishing the desired aims.

The Present Status of Health Offerings with Reference to Constants, Variables, and Time Allotments.—For purposes of this study

health has been divided into health education and physical education. Health education includes courses in hygiene, lectures, talks, readings, or any other organized plan of providing health education. Physical education includes games, playground activities and gymnasium work.

All of the ninety-five junior high schools studied provided some form of health work in the seventh and eighth years. In the ninth year four schools make no provision for health work of any kind. This situation permits English and mathematics to rank above health, in the number of schools providing them in the ninth year.

Table VIII shows the degree of variation and uniformity in the time allotments provided to health. The greatest variation, 405 minutes per week, is found in the seventh and eighth years; one school provides 45 minutes per week to required health education while another school provides 150 minutes per week to required health education and 300 minutes per week to health education as an elective. In the ninth year the variation of 195 minutes per week is based upon physical education offerings alone.

There is a strong tendency toward uniformity in the time allotted to health. A majority of schools provide time allotments which fall within the limits of 80 and 139 minutes per week. In the ninth year seventy-nine per cent of the schools fall within these limits. The fact that the time allotments concentrate around 100 minutes per week is obviously due to a state ruling which specifies that at least 100 minutes per week must be provided to physical education work.

The median time allotments decrease slightly from the seventh to the ninth year. It is to be noted that, in any year, the median time allotment is well above 100 minutes per week.

By observing from the study it is immediately evident that the percentage of schools providing physical education is far greater than the percentage of schools providing health education. Health education is offered in fewer schools and is not as definitely organized as physical education. A comment,¹ by James M. Glass, upon a similar situation was:

Thus it appears that physical education has become fairly well organized upon a generally accepted basis. It remains for

¹Glass, James M.

the health department, first, to secure the direction and articulation of all health education activities; second, to place responsibility definitely upon physical instructors for the organization of courses in personal hygiene.

The keynote for a movement of this kind was sounded in 1917 by E. H. Fishback, Principal Junior High School, Anderson, Indiana. In urging that health work be adapted to modern social and educational demands, Fishback states:¹

The very first step in this direction is that of combining the two departments of physical training and hygiene under the title, probably, of health education. This new department will have charge of the teaching of hygiene and will unify it with physical training.

Physical education is provided as a variable in only one school. Health education is provided as a variable in three schools. It is generally agreed that health work should be required of all pupils. There is a decided decrease in the number of schools offering health education in the ninth year, especially in schools in organizations of the six-six type. Physical education receives practically the same amount of attention in each of the two types of junior high schools.

Health stands at the head of the list as a cardinal principle of education.² This means that the first duty of the school is to provide adequate instruction in matters pertaining to individual and community health. The extent to which schools attempt to realize this objective would not indicate that health was the first cardinal principle of education. However, much progress has been made in the ten years since this objective was set up.

At the present time the thing most needed is a closer relationship between health education and physical education. There is very little evidence of any attempt to bring about a practical relationship between these two phases of health work. Expressions³ by Glass and Fishback, already stated in this part, suggest that the work in health education and physical education be under the direction of the same

¹ Fishback, E. H. *Hygiene and Physical Training in the Junior High School, Educational Administration and Supervision*, III (1917), p. 94.

² Cardinal Principles of Education. *Bureau of Education Bulletin*, No. 35, (1918).

³ Pages 16 and 17.

department for the purpose of unifying all health work. This would greatly facilitate the realization of the aims of health instruction. The work could be organized more efficiently and in such a way that it would have a greater practical value to the pupils. This plan would also lead to the development of a much needed course in health education in the ninth year.

The Present Status of Music with Reference to Constants, Variables, and Time Allotments.—Music, as found in the ninety-five junior high schools, is listed under the seven following subject divisions: general music, chorus, orchestra, appreciation, band, instrumental, and theory.

There is a strong tendency for all schools to provide music throughout the three years of the junior high school. All schools, with the exception of two, had made provision for music at some time during the three years. Emphasis upon music as a constant in the seventh year shifts to emphasis upon music as a variable in the ninth year.

The weekly time allotments, as shown in Table IX, vary extensively over a wide range. The variation of 620, 570, and 570 minutes per week respectively, in the seventh, eighth, and ninth years, are caused by a few schools offering relatively large time allotments to band and orchestra as variables. The variation in time allotments to required music throughout the three years are respectively, 220, 120, and 120 minutes per week.

Uniformity in the amount of time allotted to music does not exist to any great extent. The greatest uniformity is within the interval of 120–129 minutes per week. There is also a tendency for schools to concentrate within the intervals of 80–99, and 180–199 minutes per week. This situation would indicate that 30 and 60 minute periods were commonly provided for the various subject divisions of music.

The median time allotment of 128 minutes per week remains the same in the seventh and eighth years. In the ninth year this is increased to 146 minutes per week in the first half, and to 150 minutes per week in the last half of the year.

Appreciation, instrumental, and theory are provided in a very few schools. Band work is provided in nine schools; seven of which belong to organizations of six-three-three type. In fact, all of the

subject divisions of music, with the exception of chorus in the ninth year, are offered in a greater percentage of schools of this type.

The average weekly time allotments to chorus work as a constant, vary from 52 to 77 minutes per week; and as variable, the time allotments vary from 49 to 86 minutes per week. The time allotments remain practically the same through the seventh, eighth, and ninth years.

The average time allotments to orchestra show a greater uniformity; the variation, from 73 to 88 minutes per week, is only 15 minutes.

In the case of the three subject divisions of music mentioned above, there is a general tendency for schools, belonging to the six-three-three type of school organization, to provide greater average time allotments.

The average weekly time allotments to appreciation, band, instrumental, and theory present interesting side lights upon the situation as actually found in ninety-five junior high schools.

The tendency, to provide general music as a constant throughout the three years of the junior high school, is supported by Glass in the following statement:

The cultural and æsthetic values of fine arts have
been needed to counteract the general tendency to overemphasize vocational and utilitarian values in the administration of the junior high school program of studies.

The provision of the other subject divisions of music as variable is to be encouraged as a means of providing expression for pupil's interests and abilities. Various club activities also offer opportunities for valuable training in the special fields of music.

The Present Status of Foreign Language with Reference to Constants, Variables, and Time Allotments.—Foreign language offerings were listed under the seven following subject divisions: French, Latin, German, Spanish, general language, introduction to foreign language, and pre-language.

The number of schools offering foreign language rapidly decreases from the ninth to the seventh year; ninety-three schools offer foreign language in high nine and only one school offers it in low seven. It

is also significant to note that foreign language is required of all pupils in only two instances; introduction to foreign language in low seven, and Latin in high eight.

The greatest variation in weekly time allotments to foreign language appears in the eighth grade. One school provides 250 minutes per week to French, Latin, German and Spanish, while another school provides 84 minutes per week to general language. The variation in the ninth grade is caused in a similar manner. There is a tendency for schools to offer more than one foreign language. In the eighth year forty-five per cent of the schools offering foreign language provide two or more offerings. The greatest variation in time allotments to a single offering in foreign language are respectively, 25, 120, and 160 minutes per week for the seventh, eighth, and ninth year.

The greatest uniformity in time allotments appears within the interval of 220-259 minutes per week. In the ninth year forty-eight per cent of the schools offering foreign language fall within this interval. There is also a tendency for schools to fall within the interval of 300-339 minutes per week. The use of the 45 and 60 minute periods accounts for the number of schools falling within the two intervals mentioned above.

The median time allotment is least in low seven and greatest in upper seven, being 225 and 407 minutes per week respectively. It rapidly decreases to 254 minutes per week in the ninth year, where a greater number of schools are represented.

The fact that some schools are offering general language indicates a response to the demand to formulate a general course in language for the purpose of exploration on the part of the pupils. The essence of such a movement is expressed in a statement¹ by Calvin O. Davis:

There is much to be said in favor of offering a general course in foreign language in the seventh and eighth years. Few pupils know whether it would be wisest for them to study Latin, German, French or Spanish. A course respecting the territory, people, civilization, language, literature, and history of Rome, Germany, France, and Spain would have much merits.

Latin is by far the most popular offering in any year. With the exception of five schools Latin is universally offered in the ninth

year. French, German, and Spanish rank next in order. Latin or French is more often chosen as the language to be offered in the seventh and eighth years. German and Spanish have found their way into the seventh and eighth years in only four schools. There is a tendency for a greater percentage of schools, in the six-three-three organization, to provide language courses. This is a logical situation since schools of their type are, in general, much larger than schools in organizations of the six-six type.

The average weekly time allotments devoted to each of the language courses are given in Table XXXIII. Most of the averages center around 225 minutes per week which indicates that the majority of schools provide 45 minute periods for their language classes. There is a tendency for schools in organizations of the six-six type to provide greater average time allotments. This is to be expected since individual schools of this type offer fewer separate language courses. In the case of general language, introduction to foreign language, and pre-language, the average weekly time allotments are, with one exception, approximately equal to those of other language courses.

The foreign language situation in the junior high school would be greatly improved if more attention was given to a general or pre-language course. This course should be required of all pupils and offered at the most convenient place in the seventh or eighth years. A statement¹ by Calvin O. Davis sets forth the possible content of such a course. In regard to content, Leonard V. Koos has the following to say:

The content varies from city to city, but it usually includes . . . a treatment of the origin and nature of language, the origin and development of English and its relation to other languages, the grammatical structure of language, some study of etymology for vocabulary enlargement and for demonstrating the composite structure of English words (word analysis), and the like. In addition to the obvious values of such content, such as the appreciation of the importance of language and a better understanding of the meaning of English words, it can be made prognostic of the pupil's ability in language, and thus help him and his advisers in deciding upon the inclusion or

¹Davis, Calvin O. *Junior High School Education*, p. 152-163.

exclusion of foreign language in his subsequent study programs.

A general or pre-language course, as a required subject in the seventh or eighth years, can be justified for two reasons: first, its immediate values from the standpoint of English, history, geography, and literature would supplement and interrelate the regular work in social studies and English, and second, its prognostic and exploratory values are important from the standpoint of pupil guidance.

The Present Status of Commercial Subjects with Reference to Constants, Variables, and Time Allotments.—Commercial subjects in the junior high school are undergoing a stage of experimentation as is indicated by the following subject divisions: typewriting, book-keeping, commercial arithmetic, business practice, business introduction, junior business training, stenography, commercial spelling and penmanship, business English, and shorthand.

Commercial subjects are found in sixty-two per cent of the schools in the ninth year. This percentage rapidly decreases down to low seven where only four schools provide commercial work. The extent of variation and uniformity in time allotments is found in Table XI. The greatest variation occurs in the ninth year where one school provides 100 minutes per week to business practice and another school provides 300 minutes per week each to bookkeeping, typewriting, commercial arithmetic, and business practice. In the seventh and eighth years the variations are much less. Yet they represent a relative wide variation in time allotments because they are based upon single offerings in commercial work. For example, in the eighth year one school provides 42 minutes per week to typewriting while another school provides 300 minutes per week to commercial arithmetic.

A marked degree of uniformity in time allotments is found within the interval of 200-239 minutes per week. Of the schools offering commercial subjects, fifty-eight per cent in the seventh year and sixty-six per cent in the eighth year fall within this interval. In the ninth year sixty-one per cent of the schools offering commercial subjects fall within the intervals of 200-239 and 280-319 minutes per week.

The median time allotments show no consistency in increasing or decreasing from one year to another. It is found to be least, 218

minutes per week, in low eight and greatest, 294 minutes per week, in low nine.

In the seventh year only typewriting, business practice, and business introduction are found. In the eighth year typewriting, commercial arithmetic, business introduction, and junior business training are offered. There is a decided tendency to offer commercial subjects as variables. They were found as a constant in only six schools; three of which require commercial arithmetic instead of arithmetic, algebra, or general mathematics in the ninth year. In most cases the percentage of schools offering the various subject divisions is greatest in schools belonging to organizations of the six-three-three type.

Commercial arithmetic is the most outstanding offering in the ninth year. Typewriting, business practice, bookkeeping, and business introduction follow next in order with the remaining subject divisions being found in at least one school.

The tendency to formulate general courses in the junior high school has been observed in several instances. This tendency is also evident in the case of commercial subjects. Business practice, business introduction, and junior business training are examples of such a course. An interesting sidelight which touches directly upon this point is expressed in the following statement:¹ "It will be readily seen that the idea of a unified junior commerce course is a new conception in junior high school education. The fused course has a fundamental core of business information." According to Koos:²

The content suitable for the first part would have to do with such matters as savings, investments, insurance, banks, business forms, uses of directories and other sources of information, telephone, telegraph, sending money and packages, travel, and simple business law. This type of content is regarded as so valuable that the first part of the course is recommended for a place with the constant subjects.

The Extent of Unified and Specific Curricula, and the Relative Positions of the Subject Groups with Reference to Constants, Vari-

¹*The Junior High School Curriculum*, Fifth Yearbook of the Department of Superintendence (1927), p. 33.

²Koos, L. V. *The Junior High School*, p. 299.

ables, and Time Allotments.—In this study the multiple curriculum type of program of study was reduced to the unified or constant and variable type of program of studies. This was accomplished through the application of the definitions of constants and variables.¹ For this reason the extent, to which the multiple curriculum type of program of studies was found, has not been indicated in dealing with the various subject groups. Table XXXVII shows the frequency with which the unified and specific curricula² occurred in each year of both types of junior high schools.

The unified or constant and variable type of program of studies is most often used. It is found in 97 per cent of the schools in the seventh year, in 90 per cent of the schools in the eighth year, and in 67 per cent of the schools in the ninth year. It is interesting to note that specific curricula, as listed in Table XII, are provided more often in schools belonging to organizations of the six-three-three type. The multiple curriculum type of program of studies was found in three schools of this type in the seventh year, in six in the eighth year, and in twenty in the ninth year. In schools belonging to organizations of the six-six type, the multiple curriculum plan is followed in three schools in the eighth and in eleven schools in the ninth year. The specific curricula which go to make up the multiple curricula in these schools are listed under the eighth and ninth years in the table. In the ninth year the commercial and general curricula rank first with the college preparatory, academic, and manual arts curricula following in the order named.

Table XIII presents a list of twenty of the most common offerings of the junior high school; some represent subject groups and others individual subjects. The frequency with which these offerings occur gives a composite picture of the programs of study in the ninety-five junior high schools.

The core curriculum in the seventh and eighth years is largely made up of English, social studies, United States history, geography, and civics), health, and mathematics (general mathematics and arithmetic). Other offerings which appear more often as constants in these years are: spelling, home economics, industrial arts, music, penmanship, art, agriculture, and general science. In the ninth year,

¹ See Introduction.

² Curricula as actually listed in the various programs of study.

English, health, general science, and spelling are the only offerings that occur more often as constants.

Offerings which occur as variables only in the seventh and eighth years are confined to commercial subjects and foreign language. However, many of the offerings which are favored as constants, constitute the majority of the variable offerings in these years. In the ninth year there is a decided tendency to provide as variables many of the subjects which were provided as constants in the seventh and eighth years. This is illustrated by the fact that civics, mathematics, foreign language, biology, industrial arts, home economics, art, music, agriculture, and commercial studies are strongly favored as variables in the ninth year.

The Extent of Pupil Guidance and Supervised Study as Found in the Ninety-five Junior High Schools.—Pupil guidance is recognized by authorities as one of the chief purposes of the junior high school. For example, William A. Smith states that "guidance . . . is the very keystone of the junior high-school idea."¹ Another statement from the junior high-school manual for the commonwealth of Pennsylvania says that "guidance is the primary purpose of the junior high school."²

In general the concept of pupil guidance is confined to educational and vocational guidance. Recently this concept of guidance has come to be greatly enlarged. The scope of this new concept of guidance is very well expressed in the following statement by Koos: "One hears increasingly not only of curriculum and vocational guidance, but of health (physical), avocational, cultural, civic, social, and moral guidance."³ This, of course, adds to the complexity of the whole guidance problem and also increases the responsibility to the junior high school to provide some means of meeting this problem.

Judging by the returns from the ninety-five junior high schools, we can conclude that guidance is not considered, by a large majority of principals, as one of the chief functions of the junior high school. Only 21 per cent of the principals indicated that they had made any

¹Smith, William A. *The Junior High School*, p. 377.

²*Manual for Junior High Schools*, Department of Public Instruction, Pennsylvania. Bulletin No. 14, 1925, p. 82.

³Koos, L. V. *The Junior High School*, p. 407.

provision for pupil guidance. In most cases the time allotted to guidance was incidental while in a few cases definite time allotments were provided. Two schools reported a special guidance supervisor or school counselor. One of these schools has in operation a very definite guidance program. Collinwood Junior High School, Cleveland, has developed, under the leadership of their school counselor, an organization which aims to provide guidance according to its enlarged concept as mentioned above. Each of the following persons function in the operation of this guidance program: the school counselor, grade advisers, home room teachers, assistant principals, classroom teachers, school doctor and nurse, social workers, and school visitors. Such a guidance program makes this particular school stand out as a leader in attempting to meet the problem of pupil guidance in the junior high school.

Summary and Conclusions.—The results of this study show that there is a great variation in the curriculum organization in the ninety-five junior high schools. This indicates that much experimentation is being carried on relative to the courses offered, constant and variable offerings, and time allotments. Such experimentation is to be expected and is desirable since the junior high school curriculum is under-going a process of reorganization in an attempt to meet the demands of the elementary and secondary schools and to bring about the proper articulation between these two units of the school system.

The unified or constant and variable type of program of studies is used in a large majority of schools in the seventh and eighth years. In the ninth year there is a greater tendency to use a multiple curriculum with specific courses; thirty-three per cent of the schools use this type of program of studies.

Many new subjects are being added to the junior high-school curriculum. Some of the most outstanding are: library instruction, social science, general mathematics, additional branches in industrial arts and home economics, an array of new art courses, general language, and general courses in commercial work.

Many subjects which were formerly identified with the ninth and tenth grades have been shifted down into the seventh and eighth grades. Science, industrial arts, home economics, foreign language, and commercial subjects, in the seventh and eighth grades, are good examples of this tendency.

There is a great variation in the practices of providing the various courses as constant or variable offerings. The majority of the subjects appear both as constants and variables. Of these the most common are: algebra, general science, biology, industrial arts, home economics, art, music, agriculture, and commercial subjects.

The subjects appearing most often as constants in the seventh and eighth years are: English, social studies, health, mathematics, science, industrial arts, home economics, art, music, and agriculture. In the ninth year those appearing most often as constants are reduced to English, health, spelling, and general science.

The subjects appearing most often as variables in the seventh and eighth years are: Latin, French, and commercial subjects. In the ninth year those appearing most often as variables are: mathematics, biology, foreign language, industrial arts, home economics, art, music, agriculture, and commercial subjects.

English is the only subject provided as a constant in all schools throughout the three years of the junior high school. Other subjects occurring as constants only are as follows: spelling, general science, civics, geography, United States history, and mathematics in the seventh year, United States history, mathematics, and spelling in the eighth year, and English in the ninth year.

Subjects occurring as variables only are: Latin and French in the seventh year, French in the eighth year, and arithmetic, French, and Latin in the ninth year.

The transition from the eighth to the ninth grade is rather abrupt in that there is a decided shift from constant to variable offerings.

In practically all of the subjects, the weekly time allotments to required work vary to the extent that the time allotments in some schools are twice to three times as great as in others.

At the same time there is a marked tendency toward uniformity in time allotments. The use of 45 and 60 minutes periods causes many schools to center around allotments of 225 and 300 minutes per week to the various subjects.

There is a tendency for the time allotments in the seventh and eighth years to be less than in the ninth year.

English and social studies receive approximately 40 per cent of the total amount of time given to instruction in the seventh and eighth years. Mathematics and industrial arts rank next in the amount of time received.

Of the constants in the ninth year, English receives the greatest amount of time (8.9 per cent) ; of the variables, industrial arts receive the greatest amount of time (16.7 per cent).

The percentage of time devoted to English, health, social studies, and mathematics is greater in schools belonging to organizations of the six-six type.

Very little is being done in regard to pupil guidance in the ninety-five junior high schools. The fact, that only 21 per cent of the principals indicated that they had made any provision for guidance, shows that the importance of the problem of pupil guidance has not been realized by junior high school people.

Thirty per cent of the schools have made provision for supervised study. In the majority of cases the time is equally divided between recitation and study. Sixty minutes is the time most commonly given to supervised study periods.

TABLE I.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO ENGLISH

	SEVENTH YEAR		EIGHTH YEAR		NINTH YEAR	
	Low	High	Low	High	Low	High
Total.....	95	95	95	95	95	95
Low.....	112	112	112	112	200	200
Median.....	310	308	308	304	238	237
High.....	600	340	495	495	450	420

TABLE II.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO SOCIAL STUDIES

Total.....	92	91	94	93	71	71
Low.....	180	180	150	150	80	80
Median.....	375	378	315	314	256	258
High.....	945	945	720	720	900	900

TABLE III.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO MATHEMATICS

	SEVENTH YEAR		EIGHTH YEAR		NINTH YEAR	
	Low	High	Low	High	Low	High
Total.....	95	95	95	95	92	93
Low.....	112	112	112	112	200	200
Median.....	232	232	233	233	236	236
High.....	360	360	360	360	600	600

TABLE IV.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO AGRICULTURE

Total.....	22	20	22	24	14	14
Low.....	45	45	45	45	120	120
Median.....	132	130	137	132	444	444
High.....	300	300	300	300	675	675

TABLE V.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO SCIENCE

Total.....	14	18	31	33	94	94
Low.....	43	43	42	42	200	200
Median.....	130	125	212	212	239	239
High.....	300	300	300	300	600	600

TABLE VI.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO INDUSTRIAL ARTS

Total.....	72	72	80	78	83	83
Low.....	45	45	45	45	80	80
Median.....	145	145	180	168	380	380
High.....	860	860	860	860	4000	4000

TABLE VII.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO HOME ECONOMICS

Total.....	74	74	81	80	88	88
Low.....	88	88	90	80	90	90
Median.....	136	138	188	185	400	379
High.....	630	630	630	630	900	900

TABLE VIII.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO HEALTH

	SEVENTH YEAR		EIGHTH YEAR		NINTH YEAR	
	Low	High	Low	High	Low	High
Total.....	95	95	95	95	91	91
Low.....	45	45	45	45	55	55
Median.....	126	126	124	123	108	108
High.....	450	450	450	450	250	250

TABLE IX.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO MUSIC

Total.....	91	91	90	90	91	91
Low.....	30	30	30	30	30	30
Median.....	129	129	128	128	146	150
High.....	650	650	600	600	600	600

TABLE X.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO FOREIGN LANGUAGE

Total.....	1	10	22	22	92	93
Low.....	225	220	84	84	200	200
Median.....	225	407	320	280	254	254
High.....	225	450	1000	1000	1000	1000

TABLE XI.—DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER OF MINUTES PER WEEK GIVEN TO COMMERCIAL SUBJECTS

Total.....	4	8	17	18	56	56
Low.....	200	45	42	42	100	100
Median.....	239	224	218	222	294	292
High.....	360	360	300	300	1200	1200

TABLE XII.—UNIFIED AND SPECIFIED CURRICULA AS FOUND IN THE NINETY-FIVE JUNIOR HIGH SCHOOLS

Curricula*	SEVENTH YEAR		EIGHTH YEAR		NINTH YEAR	
	6-3-3	6-6	6-3-3	6-6	6-3-3	6-6
<i>Unified**</i>	41	51	38	48	24	40
Academic.....	1		2		5	6
College Preparatory..			2	1	8	4
Classical.....			1	1	2	1
Language.....					1	
English.....	1		2		4	
Oral English.....			1		1	
Latin.....				1	1	1
Commercial.....	1		4	3	17	10
Scientific.....			1	2	4	4
Technical.....			1		1	
Manual Arts.....	1		3		9	1
Domestic Arts.....	1		2		3	3
General.....				1	10	4
Industrial.....	1		1	2	3	4
Vocational.....	1		2		3	1
Business.....					1	
Agriculture.....					1	3

*Unified and specific curricula as found in the ninety-five junior high schools.

**Constant and variable type curriculum.

TABLE XIII.—DISTRIBUTION OF CONSTANTS AND VARIABLES
IN THE NINETY-FIVE JUNIOR HIGH SCHOOLS

Subjects	CONSTANTS						VARIABLES					
	7TH YEAR		8TH YEAR		9TH YEAR		7TH YEAR		8TH YEAR		9TH YEAR	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Health	94	94	93	93	90	90	4	4	4	4	4	4
English	95	95	95	95	95	95						
U. S. History	65	71	72	54								
Geography	74	65	34	32					3	2		
Civics	33	36	49	62	22	19			1		38	38
Gen. Math	32	33	35	35	2	2					10	10
Arithmetic	63	62	60	59							3	1
Algebra			1	2	27	27					55	56
Gen. Science	7	9	23	24	47	47			1	2	31	31
Biology			1	1	8	8					17	17
Latin				1					16	21	90	91
French							8	7	11	11	19	19
Spelling	92	92	91	91	40	40					2	
Penmanship	46	46	44	44	3	3	3	3	4	4	3	1
Industrial Arts	56	55	55	55	3	3	19	20	31	29	81	81
Home Economics	58	58	58	57	9	10	17	18	26	26	80	79
Art	38	37	33	32	4	4	13	13	18	18	36	36
Music	75	75	67	67	40	40	61	62	63	62	79	79
Agriculture	19	17	19	19	3	3	3	3	3	5	10	10
Commercial Subjects	1	2	2	3	3	3	3	6	15	15	53	53

Following the study new Junior High School standards were formulated. The following program of studies was adopted as a minimum program for Ohio Junior High School.

RECOMMENDED JUNIOR HIGH GENERAL PROGRAM OF STUDIES

SEVENTH YEAR	Periods per week	EIGHTH YEAR	Periods per week	NINTH YEAR	Periods per week
English (R).....	4	English (R).....	4	English (R).....	4
Mathematics (R).....	4	Mathematics (R).....	4	Mathematics (E).....	4
Social Studies (R).....	4	Social Studies (R).....	4	Social Studies (E).....	4
Health and Physical Ed. (R).....	3	Health and Physical Ed. (R).....	3	Health and Physical Ed. (R).....	2
General Science.....	3	General Science.....	3	General Science.....	3 to 5
Arts (R).....	5	Arts (R).....	4	Music (R).....	2
Art or Drawing (1)		Music (2)		Guidance and Activities (R).....	3
Music (2)				Homeroom Guidance (1)	
Practical Arts		Practical Arts		Extra-Curricular Act. (2)	
Home Economics		Home Economics		Foreign Language (E).....	4
				Industrial Arts (E).....	4
				Fine Arts (E).....	2
Guidance and Activities (R).....	4	Guidance and Activities (R).....	4		
Homeroom Guidance (1)		Homeroom Guidance (1)			
Classroom Guidance (1)		Classroom Guidance (1)		Bus, Practice and Typing (E).....	4
Extra-Curricular Act. (2)		Extra-Curricular Act. (2)		Home Economics (E).....	4
Library Instruction (R).....	1	Introduction to Vocational Life (R).....	3		
		(1st Semester)			
		Electives (2d Semester).....	3		
		Introd. to Business Practice			
		Foreign Language			
		Industrial Arts			
		Fine Arts			
Total Periods per Week.....	28	Total Periods per week.....	29	Periods to be taken.....	23 to 28

The Method of Daily Schedule Construction was presented by H. L. Harrington, Director of Junior High Schools, Detroit.

THE METHOD OF DAILY SCHEDULE CONSTRUCTION
IN THE DETROIT INTERMEDIATE
(JUNIOR HIGH) SCHOOLS

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The construction of the daily program or schedule of classes is one of the most important administrative acts that the principal of a junior high school has to perform. Efficiency of instruction, the most effective use of the pupils' time, economy in the use of teachers' time and of the physical equipment, and ease and simplicity of administration depend in a very large measure upon the care with which the schedule of classes is constructed.

It is unfortunate that a subject of such practical importance has received so little attention on the part of students of education. The literature upon the subject is exceedingly meagre. Some few articles have been written with reference to certain aspects of the construction of the schedule in senior high schools. As far as I have been able to discover, none has been written with reference to the junior high school, although, of course, what applies to one applies to the other, the only difference being that the senior high school would ordinarily require a more complicated schedule due to greater diversity of elective subjects. Neither does any school of education, as far as I have been able to discover, offer any course dealing with this subject. As a result, the secondary-school administrator newly elected to his position must usually approach his first task of constructing his schedule with no further knowledge to guide him than his own narrow personal experience, which in many cases is exceedingly limited if not practically non-existent. This is unfortunate, since not only he, but his pupils and teachers must suffer for it; and it should be unnecessary, for it is obvious that there must be many excellent methods of schedule construction being operated in the schools of the country. All that is needed is that publicity should be given to these methods, so that inexperienced administrators may benefit from work which has already been done, and experienced

administrators may check their methods against those of other workers in the field. It is even not impossible that general principles of method might be derived, if a sufficient number of cases were thus made available for study.

What follows is an attempt to present briefly the method generally used in schedule construction in the intermediate (junior high) schools of Detroit.

There are four main elements with which the schedule maker has to do:

1. The program of studies
2. The student body
3. The teaching staff
4. The physical equipment (instructional rooms, etc.)

The program of studies is defined as the total offering of the school expressed in subjects taught and in time allotted to each. It comes to the hand of the schedule maker usually more or less fixed in character, the assumption being that the authorities ultimately responsible for the conduct of the school have decided upon the subjects to be taught to various types of pupils, and upon the time allotted to each, and with the outcomes desired for each type of pupil in mind.

In Detroit, the program of studies in the junior high schools consists in the seventh grade of a certain number of subjects prescribed for all pupils, the only differentiation being upon sex lines in health education and in the practical and household arts, with time allotments varying from two to five hours per week to each subject. In the eighth and ninth grades certain work is prescribed for all pupils, with sex differentiation as in the seventh grade, and with further differentiation on the basis of three curricula in each grade, the language (Latin or French), practical arts, and commercial. Subjects have time allotments varying from two to six periods per week in these grades. It is the schedule maker's duty to see that the program of studies is made available to pupils according to the intention of the authorities responsible for its adoption.

TABLE I. 8B PROGRAM OF STUDIES FOR DETROIT INTERMEDIATE SCHOOLS IN 60-MINUTE PERIODS OF INSTRUCTION PER WEEK

	LANGAUGE		PRACTICAL ARTS		COMMERCIAL	
	Boys	Girls	Boys	Girls	Boys	Girls
Health.....	5	5	5	5	5	5
Social Science.....	5	5	5	5	5	5
English.....	4	4	4	4	4	4
Mathematics.....	4	4	4	4	4	4
General Science.....	2	2	2	2	2	2
Auditorium.....	1	1	1	1	1	1
Music.....	2	2			2	2
Art and Design.....				3		
Latin or French.....	5	5				
Foods.....		2		3		2
Clothing.....				3		
Shops.....	2		6		2	
Mechanical Drawing..			3			
Business Practice....					5	5
TOTALS.....	30	30	30	30	30	30

The second element, the student body, comes to the schedule maker relatively fixed in character. The whole complex problem of individual differences arises in connection with it. The schedule maker must so organize it that its administration and control may be simple and economical; so that the program of studies may be placed effectively at its disposal; and so that the teaching staff and physical equipment may most effectively be used by it.

The first step in its scheduling is to determine the number of pupils who will be in membership by grades. This is done by surveying the pupils already in the school and prospective students in contributory schools. The second step is to determine in any one grade the number of pupils that will be found in each subject. For this purpose subjects may be classified as follows:

- A. Subjects required of all pupils in the grade. The number of pupils in such subjects will be the total membership of the grade.
- B. Subjects differentiated according to sex. The number of pupils in such subjects will equal the number of boys or the number of girls, respectively, in the grade.

- C. Subjects differentiated according to pupils' elections. To determine the number of pupils in any such subject, pupil elections of subjects must be made and tabulated.

The third step is to decide upon the approximate size of the class unit or recitation section in each subject. Two considerations should govern: First, the size should not exceed that set as maximum for efficiency of instruction; Second, economy demands that it should be kept as large as possible without sacrificing efficiency of instruction.

The number of class units or recitation sections in each subject for the grade may now be calculated, by dividing the number of pupils in each subject in the grade by the size of the recitation section decided upon, and the number of recitation sections in any subject for the whole school may be determined by adding together the sections in that subject for all of the grades.

The third element, the teaching staff, may now be determined as to numbers by departments of instruction, by multiplying the number of recitation sections in any subject by the number of times it recites per week, and dividing this product by the number of recitations per week decided upon as the normal teaching load per teacher. Certain adjustments will usually need to be made in this quotient to allow for various non-teaching duties on the part of certain teachers, and for fractional teachers in any department.

In like manner the fourth element, the physical equipment, embracing the various specialized and non-specialized instructional rooms may be determined for each subject by multiplying the number of recitation sections in any subject by the number of times the subject recites per week and dividing the product by the number of times each room is used per week for instructional purposes. In case the quotient in any instance exceeds the necessary number of rooms of the required type in the building, steps will need to be taken to use other space, if any, not primarily intended for the specific type of activity for which the deficiency exists, or to decrease the membership, or to increase the size of recitation sections, thus decreasing the number of sections, etc.

This constitutes the framework of the schedule, that is, the number of recitation sections per subject is established, the number of teachers per subject is determined, and the number of instructional rooms per subject is ascertained.

Next to be considered is how recitation sections in the various subjects are to be made up, their number having already been determined. Their make-up will obviously reflect the policies of the school with regard to the ability grouping of pupils, whether or not there is to be curriculum segregation of pupils in subjects common to all curricula and whether or not the pupils are to be segregated on the basis of sex in subjects which are open to both sexes. In the method here described pupils are segregated according to general ability; i.e., on the basis of a composite ability score made up of the factors of intelligence rating, teacher's estimate of general scholastic ability, and chronological age. Pupils are not segregated on the basis of curriculum electives in the subjects which are constant for all curricula; that is, in general, in sections of such subjects as English, social science or mathematics, pupils of language, practical arts and commercial curricula will ordinarily be found together and both sexes will usually be found in any such constant-subject section.

A grade is organized in a preliminary way in the following manner: The pupils in the grade are rank-ordered from ablest to least able and groups of the size decided upon for recitation sections in the constant subjects are cut off successively from the top. These sections then become, subject to adjustments to be described later, the recitation sections in all subjects, such as English, mathematics, social science, general science, which are constant in all curricula and in which the sections formed as described above recite as complete units and uncombined with other sections. It is evident, too, by the process by which they were made up that they are relatively homogeneous with respect to ability, as "ability" was described above. The pupils in each of these groups remain together as a group for purposes of instruction in the non-differentiating subjects. Each section, however, will obviously break up into sub-sections when subjects are considered which differentiate according to sex, and which differentiate according to pupil elections or any other reason. Thus, under the program of studies presented above, any one section, which recites as a unit in the non-differentiating subjects might break up into some or all of the following sub-sections when differentiation according to sex or according to pupil election is concerned.

TABLE II. SUB-SECTIONS CONSTITUTING A NON-DIFFERENTIATING
SUBJECT SECTION

1. Language Curriculum, boys (Latin).
2. Language Curriculum, girls (Latin).
3. Language Curriculum, boys (French).
4. Language Curriculum, girls (French).
5. Practical Arts Curriculum, boys.
6. Practical Arts Curriculum, girls.
7. Commercial Curriculum, boys.
8. Commercial Curriculum, girls.

Each of these sub-sections in the finished schedule is an entity, that is, the pupils comprising it move about from recitation to recitation together, and in that recitation where one member is found the others will also be found. (In general. Exceptions may be noted in the cases of pupils irregular in the grade due to subject failure, etc.) We have hence a situation in which non-differentiating recitation sections keep together as an entity for recitations in non-differentiating subjects, but break up into sub-sections in the differentiating subjects to recombine with similar sub-sections from other non-differentiating subject sections to form recitation sections in the differentiating subjects. The process of schedule making thus becomes a process of dealing with pupils not as individuals but as sections and sub-sections of various sizes. The schedule maker's task, broadly speaking, is to assign the non-differentiating subject sections to rooms and teachers and to break the non-differentiating subject sections up into differentiating subject sub-sections, to recombine these into recitation sections in the appropriate differentiating subjects and assign these to rooms and teachers. An example will illustrate the process.

Assume an 8B grade to have been organized in a preliminary way as described above, that is, by rank ordering the pupils from ablest to least able and then cutting off, from the top, groups of the size decided upon for recitation sections in the non-differentiating subjects. Assume further that opportunity has been given these pupils to make their choice among the various curricula offered, or selections from among the elective subjects, and that a tabulation of these elections shows a situation in the first few sections of the grade to exist as follows (Table III.):

TABLE III. CURRICULUM AND SUBJECT ELECTIONS
FOR CERTAIN 8B SECTIONS

Section	LANGUAGE CURRICULUM				COMMERCIAL CURRICULUM		PRACTICAL ARTS CURRICULUM		TOTAL		
	Latin		French								
	B	G	B	G	B	G	B	G	B	G	
1.....	13	12	3	3	2	1	2	2	20	18	38
2.....	12	10		2		2	9	2	21	16	37
3.....	8	6	2	2	3	2	11	9	24	19	43

That is, in the highest non-differentiating subject section there are 13 boys and 12 girls who have elected Latin in the language curriculum, 3 boys and 3 girls who have elected French in the language curriculum, 2 boys and 1 girl who have elected the commercial curriculum, and 2 boys and 2 girls who have elected the practical arts curricula for boys and girls respectively. That is, this first non-differentiating subject section breaks up into eight differentiating subject sub-sections 13, 12, 3, 3, 2, 1, 2, and 2 in size respectively, and in like manner the subsequent non-differentiating subject sections break up into sub-sections of varying sizes.

The easy scheduling of these sections and sub-sections is made possible and practicable by the use of two forms, one of which may be called the room-teacher program and the other the temporary home-room program, the second so-called because the home-room group in Detroit is identical with the non-differentiating subject section. The room-teacher program is ruled into as many columns as there are teachers in the school and at the top of each is written the name of a teacher; teachers being grouped by departments, and the number of the room assigned to each teacher is written in the column under her name. Horizontally the room-teacher program form is ruled into as many major divisions as there are periods in the school day, and each of these major divisions is again ruled into five sub-divisions, one for each day in the week. Each column therefore provides a place to enter for every period of the week a recitation section for the teacher whose name appears at the top, and for the room whose number appears at the top (Form I).

One temporary home-room program is needed for each home-room, non-differentiating-subject, section. It consists of a sheet of

paper ruled into a series of rectangular compartments each of which is ruled vertically into five columns, one for each day of the week, and horizontally into as many lines as there are periods of the day. See Form II. One of the rectangular compartments is assigned to each of the elective-subject sub-groups which make up the larger group. It will be seen that each of these compartments affords one space for each period of the week in which the subject in which that particular sub-group is to recite at that time may be entered. As the scheduling progresses each entry is made simultaneously upon the temporary home-room program and upon the room-teacher program. This, it will be seen as the description proceeds, prevents all conflicts since entries made upon the home-room program make it certain that all the pupils' time will be filled and that no pupil will be assigned to more than one subject at one time, and entries made upon the room-teacher program ensure that each teacher's time and each room is filled as desired, and that not more than one section is scheduled to any room or teacher at one time.

Either at this point or at some previous time the recitation sections in the various subjects, the number of which has already been determined, should be distributed among the teachers that are to teach them, as to subject, number, and grade, so as to make sure that the number of lesson preparations per teacher per week may be kept at the desired minimum and that the instructional load upon the teachers in any department may be kept equalized:

It has been found best to schedule first those subjects in which the recitation sections are made up of combinations of two or more whole non-differentiating subject sections, or of combinations of parts of two or more such sections, that is, of those subjects that are not required of everybody regardless of sex or curriculum or subject election. These subjects, with time allotments for the 8B grade under consideration, are physical education, differentiated for boys and girls, 5 periods per week; Latin or French in the language curriculum, 5 periods per week; business practice in the commercial curriculum, 5 periods per week; printing for boys in the practical arts curriculum, 6 periods per week, and mechanical drawing, 3 periods per week; foods, clothing, and art for girls in the practical arts curriculum, 3 periods per week each; auditorium for the entire section but combined with other sections, 1 period per week, and music for the entire section but combined with other sections, 2 periods per week.

Room Teacher Program for _____ Department

Room							
Group							
Teacher							
1	M						
	T						
	W						
	Th						
	F						
2	M						
	T						
	W						
	Th						
	F						
3	M						
	T						
	W						
	Th						
	F						
Lunch							
4	M						
	T						
	W						
	Th						
	F						
5	M						
	T						
	W						
	Th						
	F						
6	M						
	T						
	W						
	Th						
	F						

Of these subjects, the scheduling of physical education is done first. Where duplicate facilities are available for boys and girls it occasions little difficulty, as, in general, in a typical situation all that is necessary is to schedule a sufficient number of sections to physical education at any one hour of the week to fill the accommodations for both sexes and then schedule the boys to one gymnasium, etc., and the girls to the other, homogeneity as to grade, etc., being provided for in the process. Assume that, in accordance with the above, physical education has been scheduled to the sixth period for sections 8B1, 8B2, and 8B3. Consider next Latin. As was indicated in Table III, 13 boys and 12 girls or 25 pupils have elected Latin. Reference to the home-room program shows that physical education has been scheduled for the sixth period. All other periods for pupils of this section are still unscheduled and Latin may be scheduled to any of them, so far as the pupils are concerned. Reference to the room-teacher program shows that teachers and rooms are available at all periods, hence Latin may be scheduled to any except the sixth, in which the pupils of the section have already been scheduled in physical education. Assume that the third period each day in the week is satisfactory and enter Latin in the third period on the temporary home-room program for the Latin-language curriculum-subgroup, boys and girls. But French must also be scheduled to the third period, for the 3 boys and 3 girls in the language curriculum who have elected French, likewise business practice for the 2 boys and 1 girl in the commercial curriculum, and also printing for the boys in the practical arts curriculum, as well as two periods of foods and three of clothing for the girls in the practical arts curriculum. It is, of course, necessary to refer in each case to the room-teacher program to see that room and teacher are available in these subjects, and to make the proper entry on that program in each instance.

Next consider section 8B2. Twelve boys and 10 girls have elected Latin in this section, and they must be combined with the 25 pupils in section 8B1 who have elected Latin to make up a single Latin section. If all these pupils are combined into one Latin section, however, it will number 47, whereas 34 is the size previously decided upon for Latin sections. (The calculation by which 34 as the section size was determined is not reproduced here.) This difficulty is met by shifting out of section 8B2 enough Latin students to reduce the size of the Latin section to approximately 34, that is, the 10 girls in 8B2

who have elected Latin are shifted to the 8B3 section, and in order to keep the 8B2 section thus reduced by 10 relatively unchanged in size, and of the 8B3 section thus increased by 10 at normal size approximately 10 pupils are shifted from 8B3 to 8B2. These should be girls, since girls were shifted from 8B2. The girls selected are the 2 girls who have elected French, the 2 who have elected the commercial curriculum, and the 9 who have elected the practical arts curriculum. By this shift, the Latin section is kept at normal size, and the sections in the other subjects upon the basis of which pupils differentiate are not increased beyond the limits set for them. In fact none of them are as yet filled to that point, and each will still receive pupils from additional sections (8B3-4, etc.).

This means that while a Latin section for the third period has been filled, the French, business practice, and practical art sections which recite in that period have not been filled. When the 8B3 section comes to be scheduled it will still be possible to schedule such pupils as have elected these latter subjects to the third period in the unfilled sections there, but it will not be possible to schedule Latin to that period unless examination of the room-teacher program shows another room and teacher available in that period. If no such room and teacher are available it will be necessary to shift all Latin pupils from the 8B3 section to the 8B4 section, and make compensating shifts of pupils in other curricula to the 8B3 section. The same consideration will, of course, need to be given to the other subjects as has been described here in reference to Latin. It will be observed that by this process the homogeneity of sectioning is not greatly affected in subjects which are required of all pupils alike (by transfers usually between contiguous sections) and homogeneous grouping is maintained in subjects which are elective or differentiated in various ways.

It may be well to consider briefly a typical temporary home-room program, for instance that of 8B1, complete except for the subjects in which this section recites as a unit (Form II). It will be noted that physical education is scheduled to the sixth period, the differentiation being, of course, between boys and girls. Latin, French, business practice, and practical arts subjects fill the third period. Monday, the fourth period is filled for all pupils with auditorium. Music is scheduled to Wednesday and Thursday of the fourth period for pupils of the language and commercial curricula. On Tuesday

851—TEMPORARY HOME ROOM PROGRAM

Boys 13

Curriculum—Language (Latin)

Girls 12

	M	T	W	T	F
1					
2					
3	Lat	Lat	Lat	Lat	Lat
4	Aud	Shop	Mus	Mus	Shop
5					
6	Ph E	Ph E	Ph E	Ph E	Ph E

	M	T	W	T	F
1					
2					
3	Lat	Lat	Lat	Lat	Lat
4	Aud	Food	Mus	Mus	Food
5					
6	Ph E	Ph E	Ph E	Ph E	Ph E

Boys 3

Curriculum—Language (French)

Girls 3

	M	T	W	T	F
1					
2					
3	Fr	Fr	Fr	Fr	Fr
4	Aud	Shop	Mus	Mus	Shop
5					
6	Ph E	Ph E	Ph E	Ph E	Ph E

	M	T	W	T	F
1					
2					
3	Fr	Fr	Fr	Fr	Fr
4	Aud	Food	Mus	Mus	Food
5					
6	Ph E	Ph E	Ph E	Ph E	Ph E

Boys 2

Curriculum—Commerical

Girls 1

	M	T	W	T	F
1					
2					
3	Bus Pr	B Pr	B Pr	B Pr	B Pr
4	Aud	Shop	Mus	Mus	Shop
5					
6	Ph E	Ph E	Ph E	Ph E	Ph E

	M	T	W	T	F
1					
2					
3	Bus Pr	B Pr	B Pr	B Pr	B Pr
4	Aud	Food	Mus	Mus	Food
5					
6	Ph E	Ph E	Ph E	Ph E	Ph E

Boys 2

Curriculum—Practical Arts

Girls 2

	M	T	W	T	F
1					
2					
3	Shop	Shop	Shop	Shop	Shop
4	Aud	Shop	Me Dr	M Dr	M Dr
5					
6	Ph E	Ph E	Ph E	Ph E	Ph E

	M	T	W	T	F
1					
2					
3	Clo	Clo	Clo	Food	Food
4	Aud	Food	Art	Art	Art
5					
6	Ph E	Ph E	Ph E	Ph E	Ph E

and Friday of the fourth period, the boys of these curricula are scheduled to shop and the girls to foods. In the practical arts curriculum, the boys in the fourth period on Tuesday are scheduled to the sixth period of shop per week which the program of studies prescribes for them (the other five periods per week being scheduled every day in the week the third period), and mechanical drawing is scheduled for Wednesday, Thursday, and Friday of the fourth period. The girls in this curriculum have the third of their three prescribed periods of foods scheduled for Tuesday of the fourth period, and art for Wednesday, Thursday, and Friday of this period.

Thus, the first, second, and fifth periods every day in the week are left vacant for those subjects in which the whole 8B1 section recites as a complete unit, and uncombined with other sections. The limits of a paper of this kind make it impossible to touch upon the scheduling of these subjects other than to state that the procedure differs from that of the subjects already discussed in being simpler, in that scheduling is by complete sections rather than by sub-sections.

The permanent home-room program shows for each home-room group the room and period of the week in which each subject recites. Its construction is purely clerical, after the temporary home-room and room-teacher programs are made, subject and period of recitation being copied from the temporary home-room program and the room number from the room-teacher program. Table IV shows the permanent home-room program for section 8B1.

A copy of the permanent home-room program of her home-room group or section is furnished each home-room teacher, who, by writing it on her blackboard or in some other manner, makes it possible for each of her pupils to copy his own individual program from it.

It, of course, goes without saying that the daily schedule should be completed sufficiently in advance of the opening of the semester for which it is to serve, that the school may begin to function without delay upon the opening day of school.

I regret that in the foregoing I have been able to indicate the broad outlines only. The limitations of a paper of this kind make it impossible for me even to touch upon a great multitude of detail, attention to which makes the difference between a good schedule of classes and a poor one.

8B1 PERMANENT HOME ROOM PROGRAM

Boys 13

Curriculum Language (Latin)

Girls 12

Hr. Studies	M	T	W	T	F
1 Eng.	124	...	124	124	124
1 Gen. Sci.	235	...	...	...	...
2 Soc. Sci.	322	322	322	322	322
3 Latin	310	310	310	310	310
4 Aud.	106	...	...	...	...
4 Shop.	137	...	...	137	...
4 Music.	...	...	117	117	...
5 Math.	316	316	316	316	...
5 Gen. Sci.	...	...	...	...	235
6 Phy. Ed.	201	201	201	201	201

Hr. Studies	M	T	W	T	F
1 Eng.	124	...	124	124	124
1 Gen. Sci.	235	...	...	...	...
2 Soc. Sci.	322	322	322	322	322
3 Latin	310	310	310	310	310
4 Aud.	106	...	...	...	...
4 Foods.	...	323	...	...	323
4 Music.	...	...	117	117	...
5 Math.	316	316	316	316	...
5 Gen. Sci.	...	...	...	...	235
6 Phy. Ed.	200	200	200	200	200

Boys 3

Curriculum Language (French)

Girls 3

Hr. Studies	M	T	W	T	F
1 Eng.	124	...	124	124	124
1 Gen. Sci.	235	...	...	...	...
2 Soc. Sci.	322	322	322	322	322
3 French.	224	224	224	224	224
4 Aud.	106	...	...	...	...
4 Shop.	137	...	...	137	...
4 Music.	...	...	117	117	...
5 Math.	316	316	316	316	...
5 Gen. Sci.	...	...	...	...	235
6 Phy. Ed.	201	201	201	201	201

Hr. Studies	M	T	W	T	F
1 Eng.	124	...	124	124	124
1 Gen. Sci.	235	...	...	...	...
2 Soc. Sci.	322	322	322	322	322
3 French.	224	224	224	224	224
4 Aud.	106	...	...	...	...
4 Foods.	...	323	...	...	323
4 Music.	...	...	117	117	...
5 Math.	316	316	316	316	...
5 Gen. Sci.	...	...	...	...	235
6 Phy. Ed.	200	200	200	200	200

Boys 2

Curriculum Commercial

Girls 1

Hr. Studies	M	T	W	T	F
1 Eng.	124	...	124	124	124
1 Gen. Sci.	235	...	...	...	...
2 Soc. Sci.	322	322	322	322	322
3 Bus. Pr.	401	401	401	401	401
4 Aud.	106	...	...	...	...
4 Shop.	137	...	...	137	...
4 Music.	...	...	117	117	...
5 Math.	316	316	316	316	...
5 Gen. Sci.	...	...	...	...	235
6 Phy. Ed.	201	201	201	201	201

Hr. Studies	M	T	W	T	F
1 Eng.	124	...	124	124	124
1 Gen. Sci.	235	...	...	...	...
2 Soc. Sci.	322	322	322	322	322
3 Bus. Pr.	401	401	401	401	401
4 Aud.	106	...	...	...	...
4 Foods.	...	323	...	...	323
4 Music.	...	...	117	117	...
5 Math.	316	316	316	316	...
5 Gen. Sci.	...	...	...	...	235
6 Phy. Ed.	200	200	200	200	200

Boys 2

Curriculum Practical Arts

Girls 2

Hr. Studies	M	T	W	T	F
1 Eng.	124	...	124	124	124
1 Gen. Sci.	235	...	...	...	...
2 Soc. Sci.	322	322	322	322	322
3 Shop.	127	127	127	127	127
4 Aud.	106	...	...	...	...
4 Shop.	127	...	...	...	...
4 Mech. Dr.	...	233	233	233	...
5 Math.	316	316	316	316	...
5 Gen. Sci.	...	...	...	...	235
6 Phy. Ed.	201	201	201	201	201

Hr. Studies	M	T	W	T	F
1 Eng.	124	...	124	124	124
1 Gen. Sci.	235	...	...	...	...
2 Soc. Sci.	322	322	322	322	322
3 Clothing.	222	222	222	...	...
3 Foods.	...	...	329	329	...
4 Aud.	106	...	...	...	...
4 Foods.	...	329	...	...	...
4 Art.	...	...	210	210	210
5 Math.	316	316	316	316	...
5 Gen. Sci.	...	...	...	...	235
6 Phy. Ed.	200	200	200	200	200

Ira A. Flinner, Educational Director, Lake Placid Club Educational Foundation, and Director of Northwood School, presented his paper without manuscript on the subject *Guiding Principles of Character Training Based on the New Psychology*.

GUIDING PRINCIPLES OF CHARACTER TRAINING BASED ON THE NEW PSYCHOLOGY

IRA A. FLINNER,

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Character education is generally considered the important end of all education. More recently we have given added emphasis to character training by devising elaborate plans so that the character objective is kept clearly before those who are responsible for such training.

We sometimes lose sight of the fact that character is a by-product rather than a direct product of educational activities, whether of the classroom or of the playground. Any system of character training which makes it too apparent to the child that he is being taught to react in certain commendable ways, is sure to fail. Character objectives must be clearly kept in mind by superintendents, principals, and teachers, but children should not be conscious of what is taking place. The more nearly character training can be indirect, the better it is likely to be. This does not mean that we should not set the stage in order to secure certain definite results. It only means that we should not make our plans so apparent to the child that he will bring into play his defense mechanisms to thwart our ends.

There is a tendency on the part of children, in their attempt to meet the standards set for them by their elders, to play a part. If life is a stage, then they are versatile stock company actors. They early discover that playing a part is the wisest thing for them in many situations. This type of behavior has a tendency to disintegrate personality. We all know the small child of three who is so well integrated that he embarrasses us by telling the neighbors the whole truth instead of coloring it as we might do. A small child has not learned the advantages which come to him from being as we might say "diplomatic." He soon learns, however, as he ranges further

from the home and comes in contact with more complex situations, that he gets into less difficulty if he does what those who have some control over him seem to want him to do. Accordingly, when he enters the first grade, he does those things which please the first grade teacher. At Sunday school he conforms to the requirements of the Sunday-school teacher. His playmates demand different things of him, and he tries to accommodate them. He early discovers that father has a certain standard for him and that mother's standard is somewhat different, and that grandfather's and grandmother's expectations are peculiar to themselves. He, of course, does not become a psychopathic case, but does become somewhat disintegrated, and can easily develop with such continued training into an individual who, to say the least, is not reliable.

Every morning newspaper has accounts of individuals who have developed, if not wholly, at least in part, dual or multiple personalities. A man respected in the community and church commits an offense against society and the community is startled. His complexes have been so developed that they dominate his actions to such an extent that he steals from the bank or commits some other crime.

Recently, within my own experience, I was startled to learn of the suicide of a man whom one hundred men of a Bible class had learned to honor and respect as their leader. When the story of his suicide was told, it was learned that he had embezzled \$175,000 of his firm's funds. Naturally, this unusual act of theft was not one that he conceived and committed at one time, but was the result rather of first stealing in a small way, gaining courage through his successes, and misappropriating still larger funds. When he took the first money, his conscience troubled him, because up to that time he did not have stealing experiences, and this unusual situation did not easily integrate with his other experiences. The second time it was easier, because he had a small body of stealing experiences, and the new experience easily became a part of the old. Each time that he took money, he may have reasoned that he was successful before, and that this time he was only going to take a little more, and besides he was badly in need of funds. Through such stealing experiences he was fast developing a stealing complex behind which he would hide every time the temptation presented itself. His conscience no longer troubled him, and stealing money from his firm became an ordinary everyday occurrence.

Any form of character training which does not recognize that the integrated or unified personality is the end of all such training, fails in the beginning.

In order that we may appreciate just what takes place in the mind when there is integration, or when there is not integration, let us discuss briefly the laws of learning.

The hour old baby is supposed to have only certain tendencies or sets as his educational equipment. He cries out when he hears a loud noise, or when he is about to fall, and behaves in other ways because of certain instincts or certain sets. Psychologists differ as to instincts—their presence and number, and for our purpose we can disregard instincts entirely and assume that the child learns independent of instinctive control. The multiplicity of stimulus-response situations constitute his body of knowledge. He hears a noise and turns his head; he is hungry and cries; he suffers pain and indicates that he is uncomfortable. For each stimulus there is a response.

The stimulus-response situations become more complex when once he has a certain body of knowledge because his responses are made in the light of what he has learned. In other words, each of his responses is conditioned by certain definite factors. To illustrate: If I were to call dog "Fido" and at the same time ring a bell, the dog would soon come to me by the mere ringing of the bell. The response to the stimulus, Fido, is modified by the action of the bell, and with repetition the stimulus, bell, alone brings the same results as the dog's name. A conditioned response is the result. The entire learning process is one of conditioned responses rather than pure responses to stimuli.

There is a psychological law called the law of reintegration, which, briefly stated, is as follows:

When the factors of one situation have one factor in common with the factors of another situation, the common factor will bring to mind the factors of the other situation.

In situation 1, we have the factors A B C D E. In situation 2 we have the factors a b C d e with "C" the common factor. The common factor "C" occurring in situation 2, will recall to mind situation 1.

Integrated experiences are those in which there are these common factors. The following simple diagram shows how an indefinite number of situations may be inter-related and integrated.

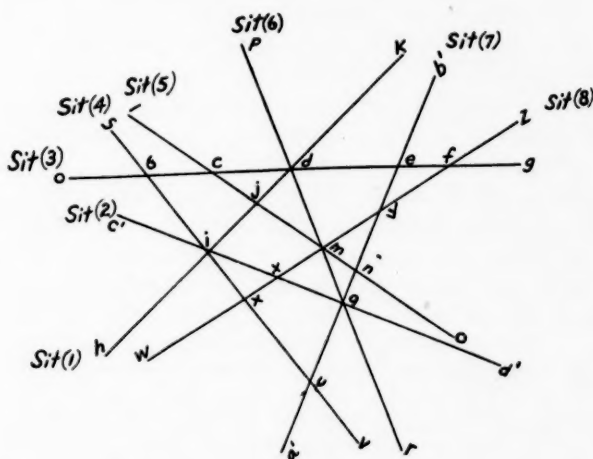


FIG. 1. This diagram shows integrated experiences. Situation 1 with factors h i j d k is integrated with Sit. 2 with factors C' i x q d'. The common factor is i. Sit. 1 is also integrated with Sit. 3, common factor is d, and with Sit. 4 common factor is i and with Sit. 5 common factor is j, and with Sit. 6 common factor is d.

In the integrated individual experiences are so related and inter-related that it would be possible in time for him to recall all of his knowledge and experiences.

Complexes are formed by related experiences separating themselves out of the main personality. There are two kinds of complexes—those that are normal and to be expected, such as the walking complex and playing-the-piano complex, and complexes with emotional attributes. We worry little about a common cold until we develop a temperature. Complexes, devoid of emotion, are not troublesome.

It should be our aim in child education so to treat children that their experiences will be highly integrated. This can be done by teaching the proper way to react to stimuli,

There are four ways for a child to respond to stimuli. He can react favorably to all stimuli which play on him, which of course would result in an individual not suited to organized society.

The second way is to refuse to respond or to suppress the desire to respond to the stimulus. There is agreement that such behavior may result in mental and emotional difficulties.

The third way in which he might react to a stimulus is to react favorably, and give the impression to those who care that he is doing otherwise. This type of behavior results in hypocrisy and may cause a dual or multiple personality.

The fourth way is to react to stimuli in a discriminating manner. It is this fourth method of reacting that we should keep in mind in the training of children. They must be taught to respond to stimuli in a discriminating way, which means that they may react favorably, if that is the proper thing to do under the circumstances, or unfavorably, if that is the wise course.

To discriminate does not mean to repress, nor does it mean that the response will always be a favorable one.

To explain the four ways in which one might react to stimuli, let me cite the instance of a girl reared in a Vermont home, who had been taught that going to the theater was wrong. When of age, she left the Vermont home to go to New York City, where she lived in one of the common boarding houses, and had the usual associations of a poor country girl in the city. She was asked one night by a young man to go to the theatre. Here was the stimulus, theater. What should be the response? She could react favorably, that is accept the invitation. She could go the second time and the third, and her theater experiences would be a grand round of shows of all types—good and bad. She could decide against going to the theater because her parents did not wish her to go. In other words, she could suppress the stimulus theater. No doubt this would develop a condition in her emotional life which might make her unhappy and displeased with her parents because they did not permit her the enjoyments of other girls. She could react a third way. She could go to the theater as it pleased her, and when she went home could keep the fact from her parents, or, if questioned, deny her act. This would result in hypocrisy and a segregating of experiences from her main

personality. She could react a fourth way, which, to my mind, is the proper way to react. She could receive the stimulus, theater, and react in a discriminating manner as follows:

She would learn what type of show was given at the theater suggested—whether or not it was recommended by substantial people, or whether it was a performance that would please or displease her. Such an investigation might cause her to conclude that the particular show suggested was not the one she should select as her first theater experience, but now since the matter was up for consideration and she had a desire to go to the theater, she could investigate other shows and select one quite to her liking. She does so. She is now quite satisfied with her conduct because she did not attend the show of inferior type, but one that the best people might select. When she goes home she can discuss the experience with her parents and feel sure that she is not guilty of unwise behavior. She can tell them that what they have said about the theater is true to some extent, but she has discovered some things not known to her parents, and that is, that the theater is not wholly good or wholly bad, and that what she must do to enjoy the theater and get from it the benefits desired, is to select the proper type of entertainment.

The fourth method then—that of reacting to stimuli in a discriminating manner—is the one that I am advocating as of paramount importance in character education. If children are continually instructed to react to stimuli about them in such a way as to satisfy the standards of good behavior, integrated personalities result.

The “thou shalt not” type of training was workable when children were for many hours each day under the control of those who were responsible for them, but to-day with our complex civilization and the distance children go from home and school, there is absolute control for only a few minutes each day. It is necessary, therefore, to have a type of character education that will train children to react wisely in situations in which they themselves must make decisions, because no one is near on whom they can depend. By continually discriminating in their reactions to stimuli, they will build up a body of habits that will stand them in good stead, and when they meet new situations they will be able in the light of the facts of the new situation, to react in a way that will be wholly satisfactory.

An integrated personality therefore is, to my mind, the end of all

character education, and can be secured through a process of training which teaches a child to discriminate in his reactions to stimuli.

Teacher Training During Service, was presented by James M. Glass, Consulting Director, Florida State Department of Public Instruction, Rollins College, Winter Park, Florida.

TEACHER TRAINING DURING SERVICE RELATED
TO TWO URGENT NEEDS IN SECOND-
ARY REORGANIZATION

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This paper will discuss two urgent needs in the present development of the junior high-school movement and will suggest more effective teacher training during service as one solution of each need.

THE TWO NEEDS.—The needs are: (1) *Extension* of secondary-school reorganization on the six-year basis; and (2) *Conformity* between aims and classroom practice. The need for extension concerns the progress of the six-year secondary reorganization from city systems to all systems. The objective of this extension is a much-needed articulation in public-school administration. The need for conformity concerns a closer approximation between classroom practice and the ideals of curriculum reconstruction. The objective of this approximation is the eternal search for conformity between theory and practice.

Extension is largely a problem for state leadership and more effective state supervision. Conformity is a problem, at least initially, of increased effectiveness in the supervision of teachers by administrative and supervisory leaders in city systems.

The Need for Extension.—There are approximately 4,000 secondary schools which have effected reorganization from four to six years. These reorganized schools include 40% of the total secondary enrollment—truly, a phenomenal growth for the short period of two decades. On the other hand this is 60% short of complete similarity in administration.

State Department Leadership.—A review of state department publications of the past five years will convince any one that present state programs for secondary schools give chief prominence to the development of six-year secondary systems in smaller communities. These bulletins accept the prevalence of 6-3-3 plans in city systems and reveal a concentration of state leadership upon the 6-6 plan. May the speaker be permitted an observation from personal experience in both a city system and a state department. Action in a city system is direct and because it is direct it is also immediate. This accounts largely for the remarkable development in city systems of the junior high-school movement which is the medium of reorganization from four to six years of secondary education. On the other hand action in smaller systems usually follows state department leadership and because this cannot be so direct it cannot be so immediate. This accounts largely for the present lack of uniformity.

Antidotes for Alarmists.—The fact that a slowing-up in the extension of reorganization to smaller communities is a consequence of natural conditions should, therefore, mitigate the fear, often needlessly expressed, that the present temporary status of a dual secondary system will remain. This condition of a temporary dual system is inevitable in a period of transition. An analogous condition prevailed in each stage of secondary evolution from Latin grammar school to academy, from academy to public high school, and in our generation from the four-year high school to the six-year secondary school. One can easily find cause for alarm in the present lack of articulation between urban and rural secondary administration provided he fails to recognize the unavoidable lapse of time between changes effected in city systems under directness of control and similar changes effected in rural systems under indirectness of control.

Another antidote for needless alarm can be found in the positive trend already established toward six-year secondary reorganization in smaller communities. Even two years ago, which is an appreciable interval in this period of rapid changes, the *Fifth Yearbook of the Department of Superintendence* revealed the fact that six-year junior-senior high schools exceeded in number the segregated junior high schools of city systems.

As a third antidote, which should effect cure for the alarmist, there may be cited again the concentration of state supervision, every-

where growing in aggressiveness, upon the extension of the six-year movement.

A First Resource—Increased Effectiveness of State Supervision.

—In spite, however, of these trends toward articulation, the need to expedite its progress is urgent. Two resources are capable of immediate application. The first is increased effectiveness in state supervision. Smaller systems need reorganized courses of study chiefly in the major fields of instruction. These to an extent have already been provided by some state departments but are wholly lacking in many states. The legal status of the six-year secondary school must be written into state school codes. Here again some state departments with the coöperation of their state education associations have manifested their leadership.

Too frequently state leadership ends with recommendation or prescription and falls short of the effective follow-up of direct supervision. One comes in time to associate progressive developments in secondary education on a state-wide basis with a program of state department leadership which operates as supervision in local communities and not merely as direction in the state capitol. Among many other desirable results this direct state supervision stimulates in town, township, county, and consolidated systems a program of teacher training during service. All the plans to the end of teacher training which will later be discussed in connection with the need for conformity in larger systems are practicable in smaller systems and to a degree well worth while when sponsored by state supervisors.

A Second Resource—Progressive Approximation to Similarity of Administration.

—A second resource is available to those small systems which for lack of financial support cannot immediately provide the physical plant and equipment for reorganization on the six-year basis. In many small communities it is impracticable to house and administer with the high school the two new secondary grades, the seventh and eighth in 8-4 systems and the sixth and seventh in 7-4 systems. This inexorable condition need not, however, postpone maximum curriculum reorganization in the basic subjects of English, social studies, mathematics, and science. These two grades can at the will of any administrator be gradually reorganized with respect to these general courses of study which comprise the major portions of the most complete junior high-school program of studies.

Each smaller system will find these reorganized courses of study available in its own state department, in a neighboring city system, or in any of the larger cities which within recent years have published new courses of study for the initial secondary grades. The reorganization of the general courses in English, social studies, mathematics, and science is available in one form or another to every school large or small. The conversion of a four-year secondary system into a six-year is, therefore, within the reach of all schools at least to the extent of the major courses of study which under the most favorable conditions actually do or should chiefly characterize secondary reorganization from four to six years.

Progressive Features of the Second Resource.—A start toward reorganization of a small system can be made by a change in one major branch during one school year followed by one or more similar changes in succeeding years. It is even conceivable that the small system, undiverted by all the complex problems of complete reorganization, may surpass in effectiveness the work of larger schools in one or more major lines. It is clear that, in spite of delay in securing adequate facilities and complete curriculum reconstruction, the small school by progressive steps can secure the chief educational gains to be obtained for early adolescent youth in the basic fields of instruction.

It will be apparent that a gradual approximation to reorganization will constitute essential progress toward articulation between rural and urban communities to the extent of the basic subjects of study where chiefly uniformity is needed. It will be equally apparent that these initial changes will constitute essential steps toward complete six-year administration in any small system. Once initiated the development may be guided by state and local supervision toward the ultimate use of as complete a program of studies and of as adequate building provisions as practicable for each type of small urban, rural, or consolidated system.

State department supervisors need to take cognizance of both the desirability and the feasibility of this progressive program of secondary reorganization in smaller communities. They need also to correct the mistaken notion so generally prevailing among local leaders of rural schools that the placing of the two upper elementary grades on the secondary basis is conditioned by complete equipment and the

initial adoption of all reorganized and new courses of study and methods which characterize city junior high schools.

Rural Adaptation of Urban Practices.—Complete articulation between rural and urban systems can be no more than an ultimate aim. Meanwhile progressive articulation which approaches maximum possibilities is infinitely more desirable than entire lack of articulation. It has been the custom for a time beyond the memory of us all for small secondary schools to make adaptations of large secondary-school programs to the natural limitations of conditions. These distinctions of comparative scope must largely continue until rural conditions through a process of consolidation voluntary or mandatory approach in population, enrollment, and financial status the conditions of cities.

Summary of Need for Extension.—Summarizing for the first need:—the trend toward six years of secondary education is established in the actual existence of six-year secondary schools in systems below city population. The trend is also evident in the concentration of state department supervision upon this extensive phase of the reorganizing period. Two resources are at hand to expedite articulation between rural and urban secondary schools,—first, increased state direction and supervision of reorganization and the promotion of teacher training in smaller systems for the successful operation of the reorganized schools, and, second, a progressive articulation by the gradual introduction of reconstructed courses of study in the basic subjects of English, social studies, mathematics, and science into the initial secondary years of smaller schools. There should be a more general recognition of the ever-present condition of comparatively complete and partial organizations which have always distinguished urban and rural systems of schools. The chief burden of securing the extension of six years of secondary education must continue to be borne by state departments. The function of state leadership which is most effective in promoting extension is the supervisory service following in natural sequence the development of a state program.

The Need for Conformity.—The second need is introduced into this discussion because junior high schools in city systems can and should achieve greater conformity between aim and practice. No greater professional and personal consecration can be found in any unit of the school system than among junior high school faculties. From

the beginning the movement has been distinguished by a spirit of dynamic aggressiveness which has been contagious. This spirit of professional aliveness will be acknowledged by every fairminded observer. To those who have personally experienced the two decades of the junior high-school movement the contrast between the initial uncertainty of aim and practice and the present enlightened vision is little short of phenomenal.

The time was when the junior high school was on its way with little knowledge of where or how. Experience has revealed the way, the goal, and the means of progress toward the goal. We have been steadily perfecting the administrative agencies, the curriculum materials, the classroom methods, the tools for measurement, and the agencies of research for the clarification of and the construction of means. Junior high schools are now definitely on a cleared way with the distinction between 1909 and 1929 that we have learned both where we are going and how to get there.

Constructive Criticisms.—It is well for us all occasionally "to see ourselves as others see us." The following quotation from an article entitled, "Is the Junior High School Realizing Its Declared Objectives?", by Professor J. Orin Powers of George Washington University, in the December issue of *School Life* is no doubt typical of the reactions of unprejudiced students of educational progress:—"This limited survey of whether or not the junior high school is accomplishing certain of its peculiar functions seems to indicate a negative reply, and that the situation is not encouraging. Although such is far from our belief we are convinced, nevertheless, that much remains to be done. . . . Enough has been cited, we believe, to justify the major contention of this paper. It is that little may be expected in the realization of these purposes unless specific provision is made in the organization of the school for their accomplishment. Many schools have adopted the name of junior high school and some of its external features, such as centralization, departmentalization, promotion by subjects, and even new buildings and equipment, without changing materially the content of their courses and method."

This quotation and other judgments in a similar vein are a wholesome tonic for over-sanguine optimism. By all junior high-school faculties these challenges will be accepted in the friendly spirit in which they are made. The urgency of this present need for greater

conformity between ideal and fact should not be made cause of alarm but the occasion of renewed determination to muster our forces.

Let us then in as constructive a manner as possible analyze our resources and take fresh consecration to the animating spirit of the junior high school upon which we have so reliably depended in meeting former similar challenges. These resources cannot at all adequately be enumerated in the scope of this paper. Two only will be suggested but they alone will go far toward meeting this present need for greater conformity.

A First Resource—Catching Up to Available Facilities.—The first resource is to a degree a negative suggestion which is proposed with some hesitation for fear of misinterpretation. If it will be accepted in the spirit with which it is offered, then the hesitation is needless. It is this,—that those actively engaged in junior high school administration and instruction shift the stress from the construction of facilities for progress to the employment of present facilities as means to carry us farther forward on our way toward realization of purposes.

The following conditions prevail almost universally:—reconstructed materials of instruction appear more frequently in courses of study than in classrooms; agencies for operation have been refined beyond present ability to employ them; means of measuring results have been perfected beyond power to benefit by them; the programs of guidance and socialization of early adolescent activities exceed the experience to apply them; individualization methods and socialized classroom procedures have in ideal so far surpassed practice that a condition of well-nigh indifferent hopelessness prevails. *We need to catch up to the facilities available to us.* The criticism of friends does not charge any longer that we do not know where we are going but that we not make the advance which they rightly expect.

The Initial Source of Technique.—The present gap between ideal and practice should not, however, be so surprising as it may appear to those who without experience in the magnitude of secondary reorganization may visualize it. Manifestly the means for achievement must be provided before achievement itself can come. There was a time when junior high schools were obliged to depend almost wholly upon themselves for their own technique. The practical experiment began before its purposes were clarified or the agencies to fulfill them

developed. By virtue of necessity junior high schools became constructive centers for experiments in administrative technique and curriculum research. To-day this responsibility for initiating and perfecting facilities has largely passed from the practical field of principal and faculty to research bureaus, schools of education, and to schools of experimental practice. However, for the practical administrator and classroom instructor enthusiasm engendered by interesting experiment and research on unsolved problems is likely to persist beyond the time of its necessity and to delay equal concentration on application of findings revealed in research and experiment.

Departmentalization, classification of pupils, advisory plans, subject promotion, adjustment classes, measurement of progress, pupil activities, reconstructed materials,—all these and many other outcomes of research and experiment within and without the junior high school are means to the end of improving classroom activities of teacher and taught. Whatever their origin, the technique of operation and the materials of instruction have been developed, at least adequately for present needs.

No unit in the public school system has ever so thoroughly equipped itself with the facilities of administration and instruction. But it has been at a price which is this:—while the art of administrative practice approximates conformity with its science and technique, the art of classroom practice lags far behind the objectives of its new materials and the technique of its new methods. The ostensible reason is the lack of teacher training to use the facilities of reconstructed materials and new methods. The actual reason is the temporary absorption of the supervisory function in the creation of the technique of administration and in the reconstruction of materials.

The Natural Source of Technique.—The danger is that our skill to supervise new courses of study and classroom instruction will atrophy if we delay too long on the absorbing task of constructing courses and perfecting operation. Let us turn over to research bureaus, to schools of professional training, and to specialists in every field of educational experimentation, the perfecting of the facilities for progress and concentrate our undivided energies in the practical field of application.

The present trend to distinguish between pure research studies in departments of education and applied research in public schools of practice may permanently relieve junior high schools of the dual responsibility for the initiation of facilities and the practical employment of them to achieve the education of early adolescent youth.

Practice Clarifying Distinction of Pure and Applied Research.—Fortunately present indications clearly point toward an increasing conviction among junior high-school administrators that the professional centers of educational experimentation must assume the responsibility of initiating and perfecting administrative agencies and curriculum materials. May I illustrate this crystallization of judgment by recent correspondence with the principal of a new junior high school to be opened in September, 1929. Mr. J. L. Goins, Principal of this new school at Cheyenne, Wyo., wrote me under date of Feb. 2 as follows: "I feel that our new building and school would offer a splendid opportunity for trying out some of the problems of the junior high school field. I would like to have such experiments linked up for supervision with some department of education in a university." Here is revealed a clear instance of an understanding that the department of education is the field of pure research and the public junior high school the school of applied research. The reply is also quoted to introduce the second resource in this discussion: "Just at present one of the outstanding problems is to increase the effectiveness of the principal's supervision to the end of bringing the teacher's classroom practice up to par with curriculum reorganization. I know of no single way of your contributing more effectively to your own school and to the movement as a whole than through your demonstration of practicable means of increasing your own efficiency in supervision."

A Second Resource—Increased Effectiveness of the Principal's Supervision.—Greater efficiency in supervision and in teacher training during service is likely to come in direct ratio to the observance of the first resource which is a constructive suggestion for finding time for supervision. We have endeavored thus far in our analysis to set forth the need for increased effectiveness in supervision and to find the time to acquire it. The time taken is warranted by a recent statement of President Lowell of Harvard to the effect that it is a greater task to recognize and formulate a problem than to solve it. Our next concern is the solution or the practicable means. The few plans which time permits even briefly to mention will be indicative

of many others. Each plan to be suggested has been tested in the crucible of experience in some reorganized secondary school.

Faculty Study Hour.—The reorganization of secondary education is a task of such proportions that every secondary school faculty should set aside at least one hour a week to assure their professional training for it. A weekly faculty study hour is a chief resource of the principal in increasing the efficiency of his own supervision and in promoting teacher training during service.

Let me first call attention to the term, Faculty Study Hour. It implies three things: the word, Faculty, implying principal, teachers, supervisors, advisers, and administrative assistants; Study, suggesting assignments, teacher preparation, teacher participation, and even teacher chairman leadership of the program; Hour, predicated the maximum time limit beyond which rarely does any professional activity go without defeating its purpose.

The faculty study hour is a weekly session of teachers patterned upon the ideal of socialized classroom procedure. Activity as a chief means of learning is a basic principle to all learning and training in a secondary school whether for pupils or teacher. By example the principal creates a pattern for his associates to follow as directors of pupil learning in the classrooms. This is supervision by leadership through example which positively functions.

The faculty study hour suggests several clear implications: (1) The directed learning of the faculty; (2) Leadership of principal; (3) Avoidance of administrative routine by mimeograph or bulletin board announcements; (4) A professional study plan to become a model for teachers' lesson plans; (5) Organization of faculty into committees for study, investigation, and report; (6) Assignments of topics or projects to committee members; (7) Sessions of committee reports in charge of teacher chairmen after the pattern of pupil conductor or pupil committee chairman; (8) Open discussion of the entire faculty.

Another implication is the clue to the successful operation of the faculty study hour. It is so vital that I request the privilege of a personal quotation from the "Manual for Junior High Schools" published in 1926 by the Pennsylvania State Department:—"Junior high-school teachers have a right to ask that some time within school

hours be weekly set aside for their faculty meetings. There are three among other defensible reasons for this request. First, the school day is longer than prevails in either the elementary school or high school. Second, the faculty study hour should not be a principal's meeting with the principal in the stellar role. It should be a faculty meeting with teachers in the role of active participants. This involves preparation for which time should be provided. Third, the law of diminishing returns is always operative when faculty meetings become after-school activities. No professional workers can surmount the influence of mental fatigue at the close of a day's work.

"The most favorable time for the faculty study hour is either at the close of the morning or the beginning of the afternoon session. Teachers are invariably willing to give a portion of their luncheon period if sufficient school time is added to provide an hour's program of faculty activities. In schools where the single session plan prevents a noon meeting school may be dismissed a half hour earlier at the close of the afternoon and another half hour added from the teachers' after-school time."

Faculty study hour programs may be of several types of which two will be mentioned by quoting again from the Manual: "First, a program devoted to one specific topic extending over two or more meetings; and, Second, a program devoted to a general topic extending over a semester or year. After the initial experience the second type of consecutive meetings on one general theme should predominate because of its greater effectiveness. These programs may concern, for example, new courses of study, directed learning, guidance, activities, etc.

"No principal is justified in the hasty conclusion, because teachers have commonly been auditors at faculty meetings, that they cannot participate in a personal and active way. The principal who to this degree is lacking in confidence in the abilities of his associates is unworthy of the trust of leadership. He may delude himself into believing that the teacher as auditor is receiving as great profit as the teacher as participant but he does violence to his pedagogical belief that activity is the chief means of learning. Furthermore, he fails to set the example of directed learning which he requires teachers to employ in the classrooms."

General assent will be given to the need of the faculty study hour or some similar professional program in all secondary schools large or small. It can be made a medium of teacher training during service in the program of supervision of state department, a city system, or small community system.

Demonstrations.—An effective means to launch the introduction of a new course of study or a new method of classroom procedure is the demonstration method. The demonstration is given by one instructor with a selected class in the presence of the entire faculty or a group of subject teachers. In the latter case several demonstrations may be given simultaneously.

A condition which is likely to exclude the demonstration method from the principal's program of supervision is the initial difficulty of securing volunteers. When the principal succeeds in persuading a few leaders to give demonstration lessons, confidence will spread to others. Drafting teachers for this coöperation in a program of supervision for practical teacher training should not be attempted. Volunteer service alone can bring the enthusiasm and professional spirit which all plans for the faculty study hour should be designed to create.

The principal who has never employed the demonstration method in teacher training will experience many surprising revelations of unsuspected teacher power. Let me give a personal conviction which comes from experience as follows:—no single professional activity can bring to a teacher the confidence and new strength which result from even one demonstration lesson before faculty associates.

Conferences of Teachers in Subject Groups.—Periodically the faculty study hour should become the occasion for conferences of teachers in subject groups. The principal delegates leadership to a department head, a supervisor, or a teacher chairman selected by the group. The conference method of teacher training is a direct medium for the study of new courses, the discussion of new classroom procedures, the development of objective tests, the interchange of illuminating experiences in classroom management, and the coöperative study of the many other interests and problems related to the work of each subject group.

These conferences are practicable within one faculty in a city system except in small urban schools. In the latter case the conference plan is feasible under the principal's direct leadership of each subject group. In the rural schools regional conferences may be held for a township or county unit. However organized the conference method is a direct means to teacher training during service.

A Program of Testing.—All tests are designed for the purpose of increasing supervisory effectiveness. The principal should organize as definite a program of testing as he does his program for the faculty study hour, the school assemblies, or other activities of teachers and pupils. The purpose of the testing program in one semester may be the measurement of a new course of study; in another semester the measurement of improvement resulting from a new classroom method; and in a third semester the measurement of the effects of the principal's personal supervision. The results of testing, evaluated from the standpoint of teacher training, are likely to be in proportion to the definiteness of the purpose and the extent of time provided for the testing program. Haphazard or purposeless testing has no place in the program of supervision for teacher training.

A program of testing provides teachers with dependable and objective means of impartiality measuring the results of instruction, of comparing individual teacher results with those of other teachers, and of evaluating effectiveness by standards outside the teacher's own school. So employed a program of testing is an indispensable agency for teacher training and an integral part of a principal's complete program of supervision.

Personal Visitation of Classrooms.—He who is not guilty of the sin of omission in personal supervision, by reason of absorption in easier tasks, may prosecute the defendants. He who is not guilty of the sin of commission, by reason of lack of professional training for supervision, may sit as judge over the rest of us. The case can find neither prosecutor nor judge. There is only a jury composed of classroom teachers who return a unanimous verdict of guilty upon us all.

The close of a discussion already in excess of its time limit is no place to present a constructive program for personal supervision.

This is the alibi. The reason lies in another cause. Yet I have such complete confidence in the consecrated service of all administrative and supervisory leaders engaged in the reorganization of secondary education on the six-year basis that I am persuaded of the improvement which gradually will come in this foremost function of educational leadership. Our first consideration is a clear recognition of the conditions which inhibit personal supervision.

1. *A First Condition Inhibiting Personal Supervision—Remedies.*

—Chiefly the cause of the sin of omission lies in the fact that administrative duties are insistent and obligatory. They demand immediate and definite attention and they receive it because organization and administration are more attractive than supervision. There is an insidious temptation in the mechanics of administration which few resist.

One remedy for this first condition is unremitting exercise of will power to counteract the pull of increasing one's efficiency in school operation. Cubberley says that "most principals who find themselves swamped with routine administration could emancipate themselves if they desired to do so."

Cubberley, Ellwood P., "The Principal and His School," page 45.

A second remedy which will help to assure personal supervision is the semi-annual or annual report of supervision activities. The value of this report will be enhanced if it is prepared for a superior officer. The following are ten among other items which might be included in such a report: (1) Time given to supervision; (2) Conferences with teachers; (3) Conditions observed; (4) Results produced; (5) Educational plans executed; (6) Professional programs for the faculty study hour; (7) Reforms instituted; (8) Curriculum studies undertaken; (9) Course of study changes effected; and (10) Plans to preserve leadership for the following semester or year.

2. *A Second Condition Inhibiting Personal Supervision—Remedies.*—Another condition which inhibits personal supervision is thus

stated by Briggs: "The real reason for the neglect of attention to the improvement of instruction is that many principals tacitly recognize their incompetence to perform the duties satisfactorily."

Briggs, Thomas H., quoted by Smith, William A. "The Junior High School" page 436.

Two among other remedies can be applied to correct this second condition. First, the self-training of the principal during service; this means the taking of our own medicine which we prescribe as the remedy for the lack of teacher training. It implies actual experience in personal supervision and self-directed study of the wealth of professional literature upon supervision. The second remedy lies in professional courses in secondary supervision at summer school or elsewhere. An increased demand by secondary schoolmen for courses on supervision, in place of the excessive demand for courses on administration, will promote increased attention to the practical problems of supervision in graduate and summer schools of education.

3. *Administrative Duties Subordinated by Systematized Organization.*—To assume the duty of classroom supervision most principals must more effectively discharge or delegate administrative duties. The principal can with profit pattern his organization of all duties upon the practices of business office or other professional office, where by force of circumstances there is no option between administrative and clerical duties and other executive and professional duties. Where there is necessity to organize clerical assistance and to delegate all responsibilities except the duties which cannot be delegated, it will be found that practicable ways are devised to solve the problem. The business executive and other professional worker has learned how to economize time by systematizing office work, by adopting simplified methods of bookkeeping and filing, by expediting personal conferences with associates and callers, and by delegating to office assistants every responsibility which can be delegated.

The secondary principal who impartially analyzes his responsibilities for their relative values will come to the conclusion that the duty which cannot be delegated, except in the largest schools, is

supervision. To quote once more from Cubberley's "The Principal and His School," a book which should be on the most convenient shelf of every secondary principal's library; "Supervision of instruction is the prime purpose of freeing a principal from teaching and is the end and goal toward which organization and administration should tend."

Cubberley, Ellwood P., "The Principal and his School," page 43.

4. *Possible Outcomes of Increased Effectiveness of the Principal's Supervision.*—If every principal in each reorganized secondary school in the land were to devote one-half of each school day to personal visitation of teachers, the need for conformity between aims of secondary reorganization and practices of classrooms would speedily be fulfilled. Then, a reconstructed course of study would be found in the classroom of each teacher; the modern technique of instruction would everywhere be operative; present-day measurement of classroom work would be the safe guide for improvement of instruction; the guidance and activities programs would be fulfilling their high potential contributions to early adolescent education; and a program of teacher training during service would be inaugurated which would take the secondary reorganization movement so far on its way toward conformity of aim and practice that even friendly criticism would be disarmed.

The outcome of increased effectiveness in supervision will be the much-needed conformity of purpose and practice. Furthermore, the outcome will be a more universal conviction of the educational worth of the six-year secondary school. This in turn will hasten fulfilment of the first need for extension to smaller communities. Thus in the hands of the forty per cent of reorganized secondary schools lies the conversion of the remaining sixty per cent to the six-year secondary plan.

Summary of Need for Conformity.—Summarizing for the second urgent need for conformity, the present stage of secondary reorganization issues a clarion call to us all to concentrate our energies upon the practical employment of our carefully constructed facilities of new

materials and methods of classroom instruction that the greater conformity now existing between ideal and practice in administrative operation may be counterbalanced by similar conformity between purpose and practice in instructional materials and technique. The burden rests upon the leadership of each school. Increased effectiveness in supervision and the consequent more effective teacher training during service will together accelerate conformity which in turn will hasten uniformity extension.

The lode-star of the junior high school has thus far led us on our way. The time was when hope alone justified confidence. The time came when actual achievement in the reconstructed program of studies strengthened the confidence. The time is at hand to win renewed and lasting confidence by new achievement through greater classroom consistency with clarified purpose, with reconstructed materials, and with socialized classroom procedures. Thus the lode-star will be brought nearer to shed brighter light along our appointed way.

SECOND SESSION

The second session of the Junior High School section was called to order by President Kadesch in the Cameo Ballroom of Hotel Winton at 9:15 A.M. Thursday, February 28, 1929.

Principal H. H. Ryan of University High School, University of Michigan, read his paper on *Recognition of Individual Differences in the Junior High School*.

THE RECOGNITION OF INDIVIDUAL DIFFERENCES

HEBER HINDS RYAN,

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About twenty years ago last September a group of boys entered the office wherein I presided as principal of a small high school. As I looked them over I saw that I knew all but one of them as members of the school and as football players; the one was a stranger. This newcomer was beetle-browed, squarely built, and heavy. It appeared that he had developed a craving for learning, and that he was now presenting himself as a candidate for enrollment in the high school. As he stood there, the 180 pounds of him, flanked by the enterprising lads who had ferreted him out and taught him the love of knowledge, he was, to me, too beautiful for words. In order that he might be eligible to play football, it was necessary that he pass in three subjects; so I, being coach as well as principal, placed him in two of my classes. These were algebra and plane geometry. For the third subject we selected English; we thought it unwise to have him try solid geometry without having had either algebra or solid geometry.

Time passed, and the football season was a glorious success, as were, in fact, all the other athletic seasons of the year. Nick left us then, and presently developed an interest in professional wrestling. I had an occasional letter from him, and once he sent me his photograph. After four or five years I lost sight of him.

One morning, five years ago, I saw in headlines in the sports section of a metropolitan newspaper the statement that Nick was to wrestle Joe Stecher for the heavyweight championship of the world.

Shades of the past stirred me to go down to the Coliseum to see the bout. There I sat with ten thousand other mortals and watched scissors and headlocks and toeholds for two hours, and wondered how the human ensemble could endure that kind of treatment. After the bout I worked my way past the three policemen who guarded his dressing room, and paid him a call. We talked over old times, and while we sat the promoter brought in the check which represented Nick's share of the proceeds of the evening. I recall with some bitterness that it amounted to more than my annual salary.

One morning as school opened I started down town to attend a committee meeting. As I turned the corner a block from school I saw my friend Margaret getting off a street car. Margaret was late; she bore in her hands none of the appurtenances of academic effort; she was sans books, sans pencil, sans home work, sans everything. But, socially and artistically, she was ready for the day. She was carefully groomed, the lily had been painted, and she was, all in all, quite refreshing to look upon. I said, "Margaret, you are certainly a vision; even I can appreciate you; but don't you think you might spare a little of the time and thought which you give to personal decoration, and devote that time to the kind of thing for which the school is established? You know the fundamentals of beauty come from within, not from without. The beauties of the mind endure long after physical beauty has vanished." (I need not continue the homily here; it is well known to all.) Margaret looked at me and smiled indulgently, and said, "Well, I suppose it is part of the business of a principal to talk that way; but I have to depend to some extent upon what I can see for myself. You know as well as I that a nice, wavy bob attracts more attention anywhere, anytime, than a pair of spectacles."

Margaret left us after a few months, but kept up an irregular correspondence with her home room adviser, so that we were able to follow her career. Her first matrimonial venture was not an unqualified success, and she soon found it advisable to effect a substitution and a transfer. After five or six years she wrote to express her satisfaction with life, her pleasure in her two little children, and her convictions as to the brightness of the outlook. She said that her husband, a medical man, had been assigned to an important piece of research in Germany, and that they would spend the year in Europe. Then she added, perhaps as a parting thrust, "I wonder if I'll see any of you over there?"

Frank, belligerent and determined, burst into my office at the head of a dozen boys in similar mood. He demanded of me an explanation of their being compelled to take instruction in handwriting as an accompaniment of a course in bookkeeping. I reminded him that if one kept accounts in a book it would be necessary for others beside himself to be able to read them. "But," said he, "that is no reason for trying to make expert penman out of us." I explained to him that as soon as his writing was as good as Specimen 8 on the handwriting scale which I held before him, he would be excused from further handwriting instruction. I went on to say that I had helped make the scale in question and that I knew that Specimen 8 had been written by a fourth-grade child. Frank looked at it for a moment and turned on his heel. "Come on, Gang," said he, "I guess we can write fourth grade anyhow."

Frank's has been an interesting career. In his high school work he encountered many academic difficulties; it is surely true that some of the credits he got were set down in the book of the recording angel as acts of mercy. But he played violin in the orchestra, played guard on the football team, helped manage class parties, and was in demand on the dance floor. After graduation, the same qualities and interests bore him on. He continued to be popular. He married the daughter of a well-to-do citizen. He set up a chain of automobile accessory stores. He developed political power. And the story ends with Frank, in his home city of 300,000 people, as President of the Board of Education.

Any high-school principal can construct from his own experience a long and interesting anthology. To me such a series of biographies seems to hold a significance which extends far beyond the mere enjoyment of a narrative. It provides an excellent background against which to view such a pronouncement as this one that I read the other day. Someone, in referring to cases of social success, said, "Some men are able to command the respect of other men, to gain their confidence, to secure their help. Often such men are not highly intelligent." Who says such men are not intelligent? Upon what grounds could one pronounce them unintelligent? What is the criterion for intelligence? It is undoubtedly correct to say, "Such men often do not possess the kind of intelligence which characterizes school teachers and college professors and test makers." But, in the last analysis, is it not true that consistent, conspicuous, sustained success in a con-

tinuous enterprise, in competition with other people, is an indubitable expression of intelligence?

The phenomenon of individual differences among human beings has been listed for a decade or so among the stars of first magnitude in the educational heavens. Visible to the naked eye of the layman for thousands of years, it has been the subject of limitless comment and conjecture in the general literature of the world, and it has been credited with being the source of most of the interest which man holds for man. Now it has come into the range of pedagogical telescopes, has been catalogued, has been adequately disguised in terminology, has acquired the customary coterie of worshippers, and, particularly on occasions like this, adds its plaintive note to the music of the spheres.

When you tell the layman, in your best professional manner, that you and your colleagues have begun to take account of anthropological idiosyncrasies, he is profoundly respectful up to the moment when you explain what that means. After that he regards you with suspicion, much as if you had buttonholed him to tell him that there are two sexes, or to pass on some other bit of sociological information that long ago ceased to be news.

We have been suprisingly slow to discover individual differences, and just as slow to concede the legitimacy and the beneficence of their existence. In the presence of the tendency of one's pupils to scatter in all directions in their qualities and reactions, no teacher of experience is content. The nature of the teacher's work, the attitude of the public toward the teacher's work, and the traditional attitude of humanity toward children are all against that.

To take the latter point first, history affords an interesting story of the evolution of the status of childhood in society. In the earliest days we find the child rated as an unexplainable misfortune; later as an inevitable nuisance; later as a chattel; and still more recently as a poor approximation of a human being. Most of us can remember the day when the adult world regarded the small boy as a lamentable mis-carriage of divine planning, and set out determinedly to force him as quickly as possible into a semblance of adult behavior. Only recently have we abandoned the attempt to make a frog out of the tadpole by amputation of the tail and such acts of analytic and synthetic surgery. Let us hope that we are now definitely committed to that conception of the transition from childhood to adulthood which portrays it, not as an alteration, but as a development.

For a long time the public has forced upon the teacher the role of model as well as that of instructor. In some communities it is still true that the teacher must make no mistakes; she must be guileless, and sexless, and itless. The teacher comes gradually to accept this pedestal, and to think of herself, her own interests, her own opinions, her own preferences, as criteria. Intolerance follows; she cannot permit her pupils to differ from each other, since, by some axiom or other, that would make them differ from her.

If, however, we are truly entering an age in which humanity will permit a child to be a child, to the utter disregard of purely adult stereotypes; if the teacher is ready to permit each child to be himself; and if all of us are ready to keep in mind the difference between a high standard and a narrow standard; in short, if we are in an age of tolerance of personality; then the omens are all favorable to a consideration of individual differences as a factor in schooling.



A boy left school and went to work in a department store. After a year he returned to visit the school. The principal asked, "How does working differ from going to school?" The answer was, "Well, while I was here the teachers seemed to be trying to find out all the things I couldn't do; then they kept me working at those things all the time. Down at the store they keep finding things I can do, and putting me at them. It makes you feel like you amounted to something." There is the key to an attitude which would greatly improve our handling of individual differences. The common, fundamental abilities and habits are vastly important. Among other things, they equip the pupil for conformity. The negative nature of the virtues of conformity is, however, easily overlooked. The powerful abilities are those which spring from peculiar interests and aptitudes. Spelling and grammar and handwriting and computation are so definite and so measurable, and the teaching of them is so easily routinized, that the drift of the day's work is naturally toward them. The struggle to bring the whole group to a certain minimum level of attainment in common skills readily consumes the time and obscures the opportunity for the discovery and the encouragement of the peculiar possibilities of the individual. The typical teacher is in constant need of stimulation in the hunt for possibilities. Much of this must come from supervisory and administrative officers.

For example, the so-called extra-curriculum activities are an important part of the modern high school in its function as a laboratory for qualitative analysis. The range of activities must be broad enough to foster expression of a wide variety of abilities. Most high schools now have eligibility rules which among other things limit the number of major activities in which a single pupil may participate. This limitation has had its genesis in the necessity of protecting the all-round individual from an over-load of such things. There is another justification for it. While the one versatile chap is dashing about from one activity to another, to the peril of his health and his academic prosperity, there are four or five others who are thus being cheated of their several opportunities for similar development. It is not uncommon to see a ubiquitous and willing boy fitted out by his fellows and his teachers with a halo of usefulness which serves to attract and collect all sorts of tasks; these he does acceptably, while the undiscovered talent of others lies dormant. In many cases the briskness of inter-scholastic competition causes the coaches to make use of any tried material available rather than take a chance on developing the new.

Most coaches of athletics, debate, music, and plays need to be constantly stimulated to give attention to the training of understudies for stars. By this means the benefits of the activity are extended to a greater number of pupils, and a positive check is provided against the tendency of stars in general to capitalize their indispensability in all sorts of capricious ways.

In short, my point is that one of the most effective means of bringing out individual differences is the broadening of the life of the school until it approximates the diversity of community life in general, and the regulation of that life so as to bring about the maximum of participation.



Those types of individual differences which are of paramount interest to the high-school teacher in his classroom work are so numerous and often so intangible as to be baffling and discouraging. The first effect of the use of intelligence tests was unfavorable to the progress of our thinking about individual differences. They influenced educators to believe that these tests proved human differences to be essentially and fundamentally of but one kind. Many thought that, barring abnormalities, the arrangement of individuals in order of intelligence would in itself afford a view of human differentiation

which would be at once systematic and comprehensive. It was only as the testing movement went on, and as the improvement of tests and testing methods failed to bring out high correlations between intelligence and success, that we reluctantly conceded that abstract intelligence is only a part of the story.

Certain well-known analyses have contributed greatly toward the solution of the problem. Woodrow and Baldwin set up analyses of maturity. They pointed out that chronological age, the old criterion for maturity, is insufficient because it is a measure of duration of experience, and nothing more. Mental age must be considered, since it is a measure of ability to profit by experience. Educational age is a measure of the extent to which the individual has profited by school experience. Anatomical age is a measure of the fitness of the physique to undertake experience. Social age is a measure of the ability to profit by group experience. Moral age is a measure of the comprehension of the rules of group experience.

Thorndike has presented a brief but illuminating analysis of the manifestations of intelligence, distinguishing abstract, social, and mechanical intelligence. Judd has shown the social significance of the various aspects of maturity. Downey's analysis of will-temperament is helpful, as are Charters' analysis of ideals, Reavis' analysis of maladjustment, and many recent analysis of the problem of study.

Thus the process goes on. We are coming to the point where we can think of these individual differences as arranged in categories and systems and types. In the case of the given pupil, both diagnosis and treatment are facilitated by this organization, incomplete and imperfect though it may be. Within a decade we can expect the publication of a manual of diagnosis, which will include a systematic list of types of differences, a description of procedures for recognition of differences, a compendium of diagnostic tests, and a suggestive array of devices for the adaptation of school procedure to these differences.

I have had occasion during the last half year to make a study of two groups of high-school pupils. These groups, of ten pupils each, were made up in such a way as to present a striking contrast in the effectiveness of their classroom efforts. The one is composed of those pupils who are the most successful in the academic work of the school in terms of their ability; the other of those who are least successful. The intelligence quotient is used as a measure of ability. The co-

efficient of correlation between intelligence quotient and scholarship in the academic subjects is about .70 for the whole school. The non-academic subjects, music, industrial arts, fine arts, and physical education, are left out of the calculation because of the very low correlation (.20) which they show with I.Q. The regression line of scholarship on intelligence is used to predict scholarship from intelligence, and the disparity is obtained by subtracting the predicted scholarship from the actual. The pupils having the ten highest positive disparities and those having the ten greatest negative disparities were the ones selected for study.

I started out in the hope of finding some general factor which would explain the contrast between these two groups. But, while the study has not progressed far enough to warrant conclusions, one thing is becoming quite evident: the explanation for each of these outstanding cases is going to be peculiar to the case. In other words, it is turning out to be less a matter of generalization and more a matter of individual diagnosis.

For instance, I started out with the prophecy that the unsuccessful pupils would be found deficient in reading ability. But two of the unsuccessful group, a boy and a girl, appear to be the best readers of the twenty. I expected that the non-achievers would be lacking in social sense. But one of the non-achievers, a girl, made a score on the George Washington University Social Intelligence Test which was far above the range of norms and above the range of my arbitrary extension of the norms. I expected that the unsuccessful would show inability to organize material, to use the index of a book, to select the central thought of a paragraph; but some of the best performances in these directions came from the non-achievers. I have called to my aid literally dozens of different kinds of tests and scales, with no generalizations in sight. Each of my subjects persists in his own private weaknesses and disabilities and virtues, regardless of the inconvenience which he causes me.

Here we have two girls, Sally and Janet. Sally's intelligence quotient is 118, Janet's 110. Sally is a healthy, handsome, upstanding creature, with the fire and vim of hearty young womanhood. Janet was crippled years ago by infantile paralysis and is only gradually improving in ability to walk about; she has frequent medical attention which necessitates her absence from school, sometimes for weeks. Sally shows an extraordinary understanding of human behavior, Janet

but little. Sally's reading is at the level of a graduate student in the university; Janet's at the 12th grade level. Sally's mother taught school before she was married, and feels that she has something at stake in the showing which her daughter makes at school. Janet's mother did not go to college. Sally drives her car to school; she arrives early and drives out in the directions from which her friends and teachers come, to pick them up and give them a ride. Janet is brought to school in the family car, goes through her quiet day, and is taken home. Both families are comfortably well off, both think well enough of their children's schooling to pay tuition. Janet, the cripple, the less able, is the successful one of the two. How would one predict it from the evidence? Some type of individual difference is in her favor. It must be a powerful factor, to offset her handicaps.

Here are two boys: Fred is the son of a college professor. He has one sister. Both are of high intelligence, her intelligence quotient being 138, his 125. Dick is a son of a small farmer who was born in Germany; Dick's mother was born in Hungary. Neither the father nor the mother had more than elementary education. Dick also has one sister, her intelligence quotient being 117 and his 123. Fred, as a twelfth-grader, reads at graduate school level; Dick, as a tenth-grader, reads at twelfth-grade level. They compare in about the same way in ability to use books, to outline, to select the central thought of a paragraph. Fred lives near the school, and Dick lives five miles away in the country. Fred's father and mother are anxious for him to succeed. Dick's parents are about to send him to business college, in order to give him a quick introduction to the making of a livelihood; they feel the strain of the support of the family, and hope for early relief. Fred is interested in law; he wants to go to college, and is especially anxious to try out for University athletic teams. He is a good basketball player, but has not always been able to play, organic weakness interfering. Dick is interested in mechanics, and would like to study mechanical engineering. He tinkers and builds when the opportunity presents itself. He has played on class athletic teams, but is not especially proficient. Fred likes to argue, and irritates his parents by contesting all sorts of points in family matters. Once he favored a school strike because a certain evening party was not permitted. Dick at one time became impatient over the long series of diagnostic tests, and inquired rather positively how long it would last. Here again the question rises: what in the evidence would predict

what is actually true—that the mechanics-loving son of the immigrant farmer would be the successful one of the two.

Robert's father is anxious for him to get an education, so moves to town and sets up a home a block away from the school. He requires no chores of the lad, seeking to give every opportunity for success. Emily lives on a farm on a dirt road. She must rise early, bring the milk into town with her, fight her way through the mud or snow, with her own hands unload the ten-gallon cans of milk and place them on the platform at the creamery. Arriving at the school, during the winter months, she must get down and drain the water from the leaky radiator to keep it from freezing during the day. The family can afford neither to keep pouring alcohol into such a prodigal radiator, nor to have it soldered up to cure it of its carelessness. Why should Emily do better school work than Robert?

Why does Tom, who made the winning touchdown in the Springfield game, take his honors with a matter-of-fact modesty that warms the heart, while Harry, who made the winning touchdown in the Jamestown game, swaggers about in the last stages of what might be called "Dementia Peacock"?

Children are like golf. If they were more consistent there would be less profanity and less lying; but they would be less interesting. The nearest approach to consistency in differences, so far as my own studies go, is found in sex differences. Boys must be studied as boys, girls as girls. In every grade of the school I find the correlation of intelligence with scholarship higher for boys than for girls. On the other hand, a given intelligence quotient is predictive of higher scholarship for girls than for boys, the difference being about a third of a step in a five-step marking system. Boy nature and girl nature seem to react in different ways to the same school situation.

It has been the purpose of this paper to point out four things: First, a tolerance for personality is essential to the study of individual differences. Second, a school organized as a comprehensive and well-regulated community is an excellent means of bringing out individual differences. Third, the student of individual differences may profit by a number of analyses of phases of the problem, which have by other students of the question. Fourth, as an illustration of the futility of depending upon generalizations, a contrast of cases of ex-

trreme disparity between intelligence and scholarship seems to reveal almost no common factors.

A wholesale testing program, whatever its values in other directions, will not accomplish the recognition of individual differences. Rather, the school must provide for the close personal study of cases. Individual differences call for a person-to-person technique.

President Kadesch called on Frank P. Morse, State Supervisor of Secondary Education of Massachusetts to take the chair.

E. H. Fishback, Principal of Junior High School, Anderson, Indiana, read his paper, *How Extensive Should the Elective Offerings Be to Achieve the Survey and Try Out Functions of the Junior High School?*

HOW EXTENSIVE SHOULD THE ELECTIVE OFFERINGS BE TO ACHIEVE THE SURVEY AND TRY OUT FUNCTIONS OF THE JUNIOR HIGH SCHOOL?

E. H. FISHBACK,

PRINCIPAL JUNIOR HIGH SCHOOL, ANDERSON, INDIANA

A recent speaker¹ in New York City, telling of his life as an early adolescent boy in the town of North Newport, Maine, said, "It seems to me that those days and those people become more vivid to me every year. Clearer than any scene revealed by the lights of this blazing city I see my grandmother making candles in the tin mold, a dozen at a time, or patiently sitting at the spinning wheel, which miraculously turned out yarn for our winter's stockings and mittens. Much more brilliant to me to-day than Broadway is the magic path that the moonlight used to make across the lake at the foot of our hill. And more wonderful than all else were the changing glories of the sunset, into which I used to stare of a summer's evening, as I lay on the grass at the west side of the house and speculated about life and death and principalities and powers and things present and things to come—particularly those things which might come to a country boy whose life was lived largely in his dreams.

"No one can look back to his boyhood on the farm—no man can look back on those long winter evenings after the chores were done,

¹Merle Crowell, Editor, "American Magazine."

which gave him the chance to read and dream—without a feeling of thankfulness in his heart. And it is well for us to bear in mind that the winter evenings all over this land are just as long as they ever were, and that there are just as many boys and girls with dreams in their hearts."

There are six and a half million boys and girls of the ages of 13 to 15, inclusive, who live in the cities, on the hills, on the highways and crossroads, and hamlets of this country, and they are dreaming dreams of what they are to be when they are grown. It is this group of young people that the speaker has in mind as he discusses the question of the survey and try-out functions of the junior high school. It is difficult to select any one child from this enormous group of six and one half million children and say that he is typical, but we can conclude that certain aspects are common to the group. They have their own fears, hopes, ambitions, interests, and desires and these are likely to be very acute at the junior high school age.

Just as the kindergarten evolved to care for the interests of childhood at an early age, the institution of the junior high school has been brought into existence to care for the needs of boys and girls at an age when they stand upon the threshold of adult life. It is not strange that this new type of school has become an absolute necessity in most of the communities of the United States, in spite of the fact that it is new and has some of the shortcomings of a new institution. It has appealed to adults because it has helped to solve some of the problems of modern youth. It has appealed to boys and girls because it has given them the chance to make real the dreams and longings of their inmost natures, by offering them the opportunity of development according to their own interests and abilities.

One of the most fundamental means of caring for the individual interests of boys and girls is by the offering of electives. When the junior school was first organized it imitated more closely the senior school and various *courses* were offered. These were usually three or four in number, consisting of the academic, industrial, commercial, and sometimes a science course. Very early in the movement *courses* were given up in favor of a program consisting of certain constants and electives. This plan is similar to the course plan, but it is different in that it provides more flexibility and better cares for the individual differences of children.

How extensive then should this elective system be to provide for the survey and try-out functions of the junior high school? There are at least three basic facts to keep in mind. These may be stated briefly as follows: First, the native interests, desires, and abilities of children of the junior high school age; Second, the requirements of an adult American society: and Third, the limits set by administrative necessity. The last factor, administrative limitations, is not entirely respectable in discussions in secondary education courses in colleges, and the first, interests of boys and girls, is sometimes sacrificed by principals and supervisors, because the claims of administrative requirements covers more than a multitude of sins against youth. Professors of secondary education and administrators both unite in claiming that the second factor—the needs of adult American life is of fundamental importance in choosing those electives that are considered to be worth while for junior high-school students.

Interests and Abilities of Early Adolescent Pupils.—The first consideration that would give direction to the try out and survey functions of the junior high school should be the native interests, desires, and abilities of pre-adolescent and adolescent boys and girls. These interests of pupils vary greatly in degree and kind. While one child is consumed with a desire to go to college after high school, another is equally convinced that a college education is not worth the effort and time spent upon it. These varying interests could be traced in the case of any individual child, and an explanation evolved, but the facts can not be greatly changed. They are fundamental. One boy said that he was not at all interested in going to college because his brother did not even go to high school, and he was making as much money at the local factory as his junior high-school teacher, and she was a college graduate. And so through the whole list of abilities, interests, and desires, nature has provided, fortunately, a wide variety.

There have been some discussions of interest that have smacked of "soft pedagogy," but those of us who are daily working with live boys and girls know only too well that we are deceiving ourselves when we think that we are educating a boy or girl who has no interest in his work. President A. Lawrence Lowell, of Harvard, said recently in a speech delivered at the meeting of the Chamber of Commerce of the State of New York: "How can resourcefulness be acquired? Do it by pumping into a man information? No, not at all. There is only one thing which will really train the human mind, and that is the volun-

tary use of the mind by the man himself. You may aid him, you may guide him, you may suggest to him, and above all, you may inspire him, but the only thing that is worth having is that which he gets by his own exertions, and what he gets is proportionate to the effort he puts into it. It is the voluntary exercise of his own mind." This is a good statement of the essence of the meaning of interest. Pupils will work and think to advantage upon those things that have meaning and interest for them. The real significance of the fact that interest has a way of releasing energy that lies dormant, or is misdirected, has never been fully realized by teachers, in spite of the fact that much has been said about the term "interest." The school rooms of America have great numbers of pupils who are not being educated because of a lack of interest that keeps them from exerting themselves. Educators have known that interests may be acquired, and this has led to the belief and practice of trying to force children to have an interest in many things that really do not appeal to them. The speaker would not give the impression that he believes that children should be given the opportunity of doing only those things that make a superficial personal appeal. Rather, he would say that just as adults have permanent abiding interests that are the results of many complex factors, so children have their individual interests that are fundamental, and part of the basic personality of the child. These must be respected.

If we were to take the interests of boys and girls as the sole criterion for the kinds of electives given, we can readily understand that a great variety of electives would be offered. This appears to be the next step in the development of the junior high-school program. The workers in the field have realized already that there are certain groups in school, forced there by the compulsory education law, who are not being reached by the ordinary electives of the junior high school. The new school here in Cleveland promises to point the way to a solution of the problems of disinterested pupils.

Creative work, which comes through the release of energy by a personal appeal to the desires and preferences of individuals, is likely to be found in the elective subjects. Pupils choose them, or should choose such subjects, because they have meaning or adequacy for them as individuals. Numerous examples of this are familiar to every worker in the secondary field. The speaker recalls a girl who chose elective work in English in the junior high school, and she

found the work so interesting and adequate to her desires, impulses, and ability, that she developed a really remarkable aptitude for creative work in writing. Another, a boy, found his place in public speaking and afterward pursued it of his own accord, because it gave him real satisfaction.

While it is likely that we shall have a wider program of electives, it is not likely that the way will be opened to individual pupils, except in rare instances, to choose more electives than they have in the past. In other words, there will likely be a greater variety of electives, but limited choice of electives by any one pupil. If we were to take the list of electives that are being offered at the present in the United States, there would be a great number, yet the list has not been exhausted and never will be because new conditions, social and industrial, make it necessary to add others. I have not heard of a junior high school that has a course in the elements of aviation, yet I see no reason why this should not be given to ninth grade boys and girls. A teacher who had a group of employed girls in a continuation class in civics complained that they seemed to have no interest in anything except in powdering their noses. It is possible, and probable, that a course related to beauty culture might have appealed to the interests of these girls, and then they could have found the school more worth while to them.

Yes, the interests, desires, and abilities of boys and girls would give us a long list of electives, if we tried to meet all of them, but we must not forget that there are other factors that must be considered. A selection must be made from these because society can not make use of all of the interests and impulses of human beings, and some interests are of such a nature that the school can not give adequate instruction in them. As an example of the latter, those desires and preferences connected with religion can probably be given better by the church, through its various organizations, than in the public school. In other words, all of the institutions of society must and are helping to satisfy individual needs of boys and girls. The school can not attempt to cover the whole field.

The Needs of Present and Future American Adult Life.—The second factor that controls the offering of electives is the requirements of present and future American life. We must face the fact that the child will find it necessary in a few years more to take his

place in adult life. The child himself feels dimly the requirements of this greater obligation, and preferences and tastes develop toward the activities carried on by adults.

A comprehensive study should be made to determine the characteristics and the changing needs of American civilization. Such studies have been undertaken, and important results have been achieved, but such studies must continue because American life itself is changing. Studies made in the year 1900 are not worth very much at the present time. To come nearer our own time, studies made in the year 1918 are not of much greater assistance. Vary rapid fundamental changes are being made in the social and industrial life of our people, and these must become a part of the elective system in the junior high school. A very striking effect of social demands is seen in the shift of general science in the curriculum. Originally it was made an elective, and chosen by a few, but now it is taking its place as a very necessary constant, because an intelligent understanding of present social and industrial conditions requires some knowledge of science.

The question naturally arises at this point as to how we are to know what the demands of adult life are to be for children who are now in the junior high school. Much discussion has been given to this problem. Some leaders have claimed that conditions are changing so rapidly that it is next to impossible to prepare any child for the life of an adult, and therefore such a procedure should not be attempted. This attitude probably comes from the fact that only the fleeting aspects of the present civilization are taken into account. It is readily understood that if one were counting the words in the newspapers and magazines of May and June, in the year 1927, he would conclude that the study of Charles A. Lindbergh should become a part of the junior high-school curriculum, and he would be correct in thinking that every boy and girl should know about the splendid accomplishment of Mr. Lindbergh, but to use the number of times that the name was mentioned as an indication of the amount of time or energy to be spent upon the subject would be the height of the ridiculous.

The job analysis method of determining what adults really do may be of great assistance, if it is fundamental and we do not lose sight of the forest while we are looking at individual trees. The likelihood is that such an analysis may become so narrow that it does not

cover the whole field of American civilization. There are economic, social, industrial, ethical, artistic, cultural, and religious aspects that must not be neglected, and some of these are difficult to arrange in a table of statistics. Others lend themselves quite well to ordinary scientific investigation.

The actual demands of life, as well as the interests and capacities of children, should determine the extent of the elective offerings in the junior high school. These should be fundamental and basic. Again, if such a list were given it would be long and should take into account, more or less, local community conditions. It can readily be understood that the electives in industrial work in Belle Plaine, Iowa, for example, should include agriculture while the schools of Cambridge, Massachusetts, would find such an elective not very helpful. The Italian girls of New York City, a few years ago, found domestic science electives to suit their needs, while the Jewish girls found much more interest in commercial work. These illustrations are given to call attention to the necessity of recognition of community needs in the offering of electives.

We can readily understand that if we were to take local, or even national, adult needs as the only standard for the choice of electives for junior high school pupils, we would have a very great variety of subjects. Briggs¹ has listed 40 kinds of industrial subjects, besides 8 kinds of agricultural work, as being given in 73 junior high schools in various sections of the United States. Industrial subjects ranged from barbering and butchering to woodwork, which has been the most popular industrial elective subject. Davis² has listed 29 electives as being given in the eighth grade, and 31 electives in the ninth grade. Such an array of try outs is not and can not be available in any one school.

Relation of Administrative Limitations to Elective Offerings.—This leads directly to the third factor that limits the extent of the electives. Briefly, it may be described as administrative limitations. Sometimes we overlook the fact that administrative necessity governs much of school procedure. Take again the example of Belle Plaine, Iowa. It is not possible to offer a great variety of electives in such a

¹ Briggs, Thomas H., "The Junior High School," p. 190, Houghton Mifflin Company, 1920.

² Davis, C. O., "Junior High School Education," p. 345-346. World Book Company, 1924.

school, because there are not enough teachers and children to make such offerings possible. It is estimated that in the state of Indiana nearly 80% of the pupils who attend junior high schools are in the schools organized upon the six-six plan. There are 255 such schools located, for the most part, in rural sections and small towns. By having the junior and senior high school in the same building, with the same teachers, it is possible to offer a few electives that appear to be the most fundamental. It is possible, for instance, to offer Latin as a college preparatory subject for those who are interested in going to college, and others may select agriculture if they find more interest in that subject. There is still a great field for work with these smaller schools, because in them the temptation has been to organize as six-year schools with a course of study for the seventh and eighth grade that is very similar to that of the old grammar school.

In a junior school of grades seven, eight, and nine, with 500 or more students, it is possible to offer a variety of electives that will sample the major social, recreational, and occupational activities of adult life. In such a school there could be clubs of various kinds, open to interested pupils on their own choosing, offered as a try out in social activities. There would be glee clubs, orchestras, and bands, as try outs in recreational interests. There would be various industrial art experiences for boys and girls; commercial electives for both sexes; general language courses; general science as an elective as well as a required subject; home making subjects; and others, that would be suitable to local conditions, as occupational surveys.

A word of caution should be given again regarding the choice of electives by individual students. The large junior high schools find it possible to offer a great variety of elective subjects, but this should not influence the school to open the electives for indiscriminate choice by the student, except in the case of over-age pupils who need special work. When the high schools first began to realize that all kinds of youth were attending high school, the first impulse was to throw open, by the elective system, most of the work offered by the school. Students found it possible to spend most of their four years in high school upon subjects that did not benefit them very much, and this led to confusion and disappointment. So far, the junior high school has not made the mistake, except in certain localities, of subjecting the immature child to the task of the selection of too many elective subjects.

The term *constants* is a good one, and conveys the idea of what both the child and adult society needs in like-mindedness.

At What Point Should Electives be Offered?—There are two other questions that are very closely related to the subject of this paper. In the consideration of electives as achieving the survey and try out functions of the junior high school, there must be some plan of educational guidance evolved to help the boys and girls to know about the elective offerings of the school. This involves the very important question: "In what grade in the junior high school should electives begin?"

When the junior schools were first organized a few years ago, it was the custom to offer the electives in the first half of the seventh year—when the students first entered the school. This led to a great deal of confusion and irrational choices of electives by immature, poorly guided children. The pupils were usually drawn from ten to twenty elementary schools, and the problem of getting them to choose electives intelligently was staggering. The speaker recalls that the pupils from one elementary school always, with rare exceptions, chose Latin as their elective subject, because the elementary-school principal believed that there was nothing better. This was especially unfortunate because the pupils came from an industrial section of the city. Another elementary principal, in the same system, attempted to guide all of her pupils into commercial channels. In other schools there appeared to be more guidance by pupils themselves than in any other manner. Every city that tried the plan of electives in the first half of the seventh year found serious difficulties, and gradually the plan was abandoned, but not until after elaborate plans had been devised for helping the children and their parents to choose wisely. Educational magazines of a few years ago contained numerous articles that described the procedure necessary in acquainting the boys and girls of the elementary school, their parents, and teachers, with the elective offerings of the first year of the junior high school. Such articles are rare now because a better way has been evolved.

The solution of the problem was more simple than it appeared to be. The choosing of electives is now delayed for at least a year in most of the junior schools. Some very good authorities advocate waiting even longer, or until the last half of the eighth grade. This would divide the time into two equal periods of a year and a half each.

Probably the majority of the schools at the present time offer electives at the beginning of the eighth grade. Early election certainly makes for economy in the pupils' time if it is done intelligently.

During the first year that the junior high school has the students, the students themselves are becoming acquainted directly with the work offered by the school. The teachers become acquainted with them in classes and in home room groups. In the home room meetings there is an excellent chance for an intelligent, sympathetic (in the right way) teacher to help children to plan their educational careers. Several home room meetings throughout the year should be given to this purpose, and should be supplemented by individual conferences, so that at the end of the seventh grade most of the students can make a rational choice. There will always be some who follow poor outside educational guidance of one kind or another, and they will select subjects for which they are not fitted. And, by the way, the final obligation of the selection of electives goes to the child and the parent. What appears to be a very unwise choice sometimes has been a blessing in disguise. There are many adults who feel that they would have been very much more successful if they had studied Latin. Such persons frequently choose Latin for their children in spite of the inability of the child and the protests of the teachers. After a term, or so, of the subject, the parent and child both realize that a mistake has been made, and the child is then directed into the work for which he is fitted. Actual experience has proven conclusively that fewer changes in electives are made under the plan of beginning elective work in the eighth grade than under the former plan of offering electives at the beginning of the seventh grade. Rational choices in the beginning tends to prevent changes later in the child's educational career.

If the survey and try out functions of the junior high school are to be fully achieved, there must be some provision made for the changing of electives. Again, real educational guidance is needed here. Students should not be allowed to change for any but serious reasons and then only upon the request of the child, his parents, his teacher, and the approval of the principal of the school. Change of electives can be made better at the end of a semester, and this rule should be followed except in rare instances. The junior high school has been accused of crystallizing the occupational choices of boys and girls too

early in life. If it were absolutely necessary that a *final* choice be made at either the eighth or ninth grade, that accusation would be just, but a flexible plan of changing electives obviates this difficulty.

Conclusions.—To pass in review the main points of this discussion, the speaker has tried to say that boys and girls of the junior high-school age are dreaming dreams of what they are to be and what they are to do. The junior high school was organized as a child centered school to care for the needs of early adolescent youth.

The elective offerings of this school should be extensive enough to appeal to the native interests, desires, and abilities of these pupils. While their interests are the most important, they are not the only factors that control elective offerings, because some of the interests of young people can be better cared for by other institutions. The second factor is that of the requirements of present and future American adult life. These needs should be those that are useful and fundamental. The third factor, that directs the electives that are to be given, is that of administrative limitations. Small schools must be content with small elective offerings while the large junior high school may, and should, have an offering as wide as the interests of boys and girls, limited only by the needs of an adult society and the administrative requirements of the school.

In order that electives may serve adequately the try out and survey functions of the school, intelligent educational guidance must be given for at least one year in the school itself before a choice of electives is made. If occupational, social, and recreational choices are not to become fixed too early in life, provision must be made for an easy change of electives under proper educational guidance.

The junior high school takes beautiful boys and girls at the beginning of their age of dreaming and planning for the future, and, by means of elective offerings, helps them to realize the satisfaction that comes from the release of energy in the solution of those problems in life that make a personal appeal.

Are Short Unit Courses in the Junior High School Preferable to the General Courses? was the title of a paper read by George A. F. Hay, Principal of Junior High School, Webster Groves, Missouri.

ARE SHORT UNIT COURSES IN THE JUNIOR HIGH
SCHOOL PREFERABLE TO THE
GENERAL COURSES?

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In this day of adult personal liberty and child self expression dare we say that anything is preferable? Is it, after all, a question of short unit courses and general courses; or a question of standards, ideals and objectives? Are we considering organization and administration, or content and purpose? Is it the vehicle, or its freight—and its destination?

Bode has said, "The usual procedure in most human affairs is to do the things that need to be done, afterwards to construct a theory in order to explain why it was done. The need of theory does not become apparent until it is found that the results of our labor do not tally with our expectations."

In the set up of any educational system, or individual school, there are two considerations of fundamental importance. One of these is the question of the aims to be realized; the other is the nature of the mind which is to be educated. In attempting to determine the respective preferability of short unit courses and general courses these two factors must be recognized. However, we shall concern ourselves largely with specific aims.

"The student of education can only lose his way unless the large objectives of education are clearly understood by him," says W. D. Armentrout. "So, the administrator can only become confused and bewildered in organizing and administering his program unless he has definitely in mind specific objectives, and a technique which is psychologically sound.

Perhaps the best statement of specific objectives for the junior high school is that as given by Thos. H. Briggs in his book, "The Junior High School."

1. "To continue, in so far as it may seem wise and possible, and in a gradually diminishing degree, common, integrating education.
2. To ascertain and reasonably to satisfy pupils' important immediate and assured future needs.

3. To explore by means of material in itself worth while the interests, aptitudes, and capacities of pupils.
4. To reveal to them, by material otherwise justifiable, the possibilities in the major fields of learning.
5. To start each pupil on the career which, as a result of the exploratory courses he, his parents, and the school are convinced is most likely to be of profit to him and to the state."

In these objectives are recognized the three major vertebrae of our educational system; integration, exploration or orientation, and specialization. These must be recognized, and to the extent they are not, shall our educational system fail.

If such a statement is accepted, and for the moment we shall accept it, it would seem that at least some general courses must be offered for the purpose of carrying integration, and offering the opportunity of specialization. "The question then presents itself, "To what extent shall these factors determine the courses offered by the junior high school?"

In more or less general thinking the factor of integration is delegated to the elementary school, and specialization to the senior high school and college, leaving exploration to the junior high school. But, such cannot be the case if the specific objectives as outlined by Briggs are to be accepted.

Frequently we are all too eager and glad to "pass the buck" and say: "That is not our business. That was the business of the elementary school, or that is up to the senior high school." How many teachers and principals salve their consciences by saying: "That is supposed to be taught in the sixth, fifth, or fourth grade; or that will come in the tenth, eleventh or twelfth years"? Whether we are teaching in the elementary, junior or senior high school we must recognize that it is our business to take these boys and girls where they are and give them what they need.

The three major vertebrae of this educational frame must be tightly bound together and perfectly articulated if the public schools are to fulfill their mission and justify their existence. The junior high school must continue, in a lesser degree, a common integrating education, and it must at least open the door to specialization.

If various programs of study and curricula are analyzed there is noted much variance in theory and practice. In the case of twenty-nine schools checked by the speaker nine offered electives in the seventh grade, seventeen in the eighth, and seventeen in the ninth. In most cases it was impossible from the information furnished to determine to what extent the courses offered were general elective courses, or short specialized unit courses. In practically all of the cases the election in the seventh grade indicated that the boys took manual training and the girls home economics.

In Dr. Koos' recent book, "The Junior High School," he lists four rather general types of curriculum: (1) The single-curriculum; (2) The pure multiple-curriculum; (3) The constants-with-variables; and (4) The combination. You will recall his samplings of these various types and his analysis of each.

The first of these types is not common and is almost exclusively found in junior high schools composed of only the seventh and eighth grades. As the name suggests, there is but one program for all pupils, with the possible exception of boys taking manual training and the girls taking home economics.

If checked against the five objectives listed by Briggs, it is evident that such a curriculum is little better than the old elementary school curriculum of the seventh and eighth grades. The only one of the specific objectives which is definitely recognized is the first, and that only partially. Common integrating education is continued, but not always in diminishing degree.

The second type, pure multiple-curriculum, is found to-day, but less frequently than formerly. It is found in those schools which are largely modeled after senior high schools. Such schools provide two or more fully prescribed curricula to be followed by as many groups of pupils. Each curriculum is catalogued by courses or departments such as: (1) Academic; (2) General; (3) Home economics; (4) Manual arts; (5) Commercial; etc.

When compared with the first type of curriculum suggested, there is noted some improvement. There is the suggestion of an effort to recognize individual differences and a trace of guidance. Neither of these is noticed in the single curriculum. However, there are certain very decided limitations noted in the pure multiple-curriculum.

There is no provision made for the orientation and adjustment of seventh graders. Immediately upon entering the junior high school under such a curriculum a child must begin to specialize, which at least in one sense of the word is intensifying rather than relieving the problem of articulation. Under such a curriculum pupils are permitted to shift from one department to another, though shifting is generally discouraged and usually results in many irregularities.

The constants-with-variables types of curriculum is the one which is most commonly found among schools which have been organized in accord with definite objectives, and true junior high-school principles. From the illustrations listed by Dr. Koos it is noted that the form of organization of such a curriculum varies, but that the fundamental principle is the same.

In the first sample of this type of curriculum you will recall that electives are offered during the entire seventh grade with subject content as the goal. In the second, electives are offered throughout the seventh grade with exploration as the goal. In the third, the first half is reserved as an adjustment period for the new pupils.

If compared with the two previously discussed types of curricula, there is noted a decided superiority in favor of the constants-with-variables. There is neither the narrow restriction, nor the decided differentiation, as noted in the single-curriculum and the pure multiple-curriculum types.

When checked with the specific objectives as listed above, there is noted considerable, if not exact, agreement. Through the constants common integrating education is continued. With both the constants and variables the immediate and future needs are recognized and in so far as possible are met. With the electives offered in each grade the exploration of pupils' interests, aptitudes, and capacities is made possible, the possibilities of major fields of learning are revealed and pupils are guided toward a suitable career.

The last type, the combination curriculum, is, as the name suggests, merely a combination of at least two of the aforementioned types. It probably has difficulties, but there is very grave danger of its resulting in confusion.

Of the fifty programs studied by Koos, three of them were of the single-curriculum type; two of the pure multiple-curriculum type;

thirty-one of the constants-with-variables type, and fourteen of the combination type.

"Careful scrutiny of the better examples of the constants-with-variables type of program will discover that it has all the advantages in the realization of the peculiar functions possessed by the multiple-curriculum program, and more. It will retain pupils, economize time, provide the beginnings of vocational education, recognize the child's nature, encourage better scholarship on the part of the individual pupil, and improve the disciplinary situation and socializing opportunities just as well or even better than does the second type. At the same time it remedies the serious deficiency of the latter by making possible the performance of the function of exploration and guidance, a function too important to be disregarded at this time in the child's school life. In addition it will tend to recognize individual differences more satisfactorily by permitting a much wider variation of combinations of subjects in the making of curricula."

Probably the two most outstanding examples of the constant-with-variables program as listed by Dr. Koos are those at Oklahoma City and Cleveland. Oklahoma City offers "finding and broadening" elective courses throughout the entire seventh grade, each course running for a period of nine weeks. Cleveland does not offer this opportunity until the last half of the seventh grade. This is in keeping with the general idea that there should be some time allowed for the new pupil to become adjusted to his new school.

Everyone is familiar with the significant work done in Okmulgee, Oklahoma, by Herbert B. Bruner with broadening and finding courses. The following fields are covered by these courses:

SEVENTH GRADE

Art	Mechanical Drawing
Auto-Mechanics	Science
Cooking	Sewing
Electricity	Typewriting
Expression	Vocal Music
General Shop Work	Vocational Information for Boys
Instrumental Music	Vocational Information for Girls
Journalism	Woodwork

EIGHTH GRADE

Arts and Crafts	General Repairs
Banking	Home Nursing
Brick-laying and Cement	Interior Decorating
Biological Science	Millinery
Business	Physical Science
Carpentry	Pre-Modern Languages
English-Latin	Printing
Forging and Sheet Metal	Public Speaking

Each of these courses is given for nine weeks.

The Fifth Yearbook of the Department of Superintendence gives some space to the question of short unit courses.

Tables 63, 64 and 65 are devoted to the question of short unit courses in industrial arts.

Table 63 shows that 16 out of 30 schools use short unit courses. Table 64 indicates the types of courses and the number of weeks for which they are given. The types are exploratory, pre-vocational, and combinations of these two, and the time ranges from 6 to 20 weeks. Table 65 lists the subjects in which short unit courses are given.

- | | |
|----------------------|--------------------|
| 1. Commercial: | 5. Mathematics: |
| Commercial | Arithmetic |
| Commercial geography | Mathematics |
| Typewriting | 6. Science: |
| 2. Drawing: | General Science |
| Art | 7. Social Science: |
| Freehand drawing | Community civics |
| Mechanical drawing | Social science |
| 3. Home Economics: | 8. Shop: |
| Cooking | Electricity |
| Domestic Science | Industrial arts |
| Home economics | Machine shop |
| Sewing | Printing |
| 4. Language: | Sheet metal |
| Ancient | Woodwork |
| General | |
| Modern | |

From the evidence at hand it is probably impossible to say that short unit courses are preferable to general courses, or vice versa. Judging from current theory and practice it would seem justifiable to say that general courses are preferable in English, mathematics, science, social science and the like; but that short specialized, unit courses are much to be desired in the vocational and language departments. Probably each type of courses has its place in a well planned junior high school. There must be the constant, integrating factor, and likewise, there must be the broadening and finding, the exploratory, the orienting factor. Pupils' interests, aptitudes and capacities must be found, understood, measured, and stimulated.

The attitude of the learner is probably the important question. It becomes the business of the school to discover, foster, and utilize the pupil's direct, worthy interests; and to stimulate new and higher ones through purposeful activity.

It is probably not so much a question of hours, days and weeks as it is a question of specific objectives. The big problem in curriculum building and program making is more apt to be one of setting up definite and specific objectives rather than measuring off days and weeks. For example, instead of saying that children shall learn addition, we might well say specifically—a child to finish a particular grade must add columns five digits high and three digits wide containing all of the fundamental combinations, at the rate of three columns in three minutes, with 100 per cent accuracy.

Or, we may say that before a pupil elects Latin, French, German, Spanish, or any of the industrial art subjects, he must know

- 1)
- 2) } specific things,
- 3)

what it is all about, and why he is electing it. He must have at least a speaking acquaintance with his elected subject.

We must know where we are going and realize when we have arrived. Ends, objectives and purposes must be weighed against spectacular means. Modern education may well pause and educators consider the challenge of Eugene O'Neil as spoken by his character Marsden—"always on the go—typical terrible child of the age—universal slogan, keep moving—moving where?—never mind that—don't think of ends—the means are the end—keep moving!"

If we are to check our junior high schools according to the specific objectives as stated by Briggs it would seem that some constant, general courses are needed. At the same time, it would seem that the capacities, interests, and aptitudes of boys and girls can best be explored and developed through especially adapted, elective, unit courses, which serve also a second purpose of revealing to these boys and girls the possibilities of major fields of learning through material in itself worth while.

At this point Merle Prunty gave notice and explanation of the new National Honor Society sponsored by the Department.

It would seem that it might have been well still further to define this subject, making it quite definite and specific, stating for what short unit courses are preferable. However, we shall consider it as it is.

George E. Myers, Professor of Vocational Education and Guidance, University of Michigan, read his paper entitled *What Is the Responsibility of the Junior High School for Direct Vocational Training?*

WHAT IS THE RESPONSIBILITY OF THE JUNIOR HIGH SCHOOL FOR DIRECT VOCATIONAL TRAINING?

GEORGE E. MYERS,

PROFESSOR OF VOCATIONAL EDUCATION AND GUIDANCE,
UNIVERSITY OF MICHIGAN

In attempting to answer this question, one is immediately impressed by the different conditions to be found in different cities and even in different junior high schools of the same city. It seems wise, therefore, to give the question a concrete setting by considering it with reference to some particular city. This should serve the triple purpose of providing a more clear-cut discussion of the question, of suggesting a method of attack which may be applicable in case of other cities, and of presenting certain facts and conditions which are valuable for comparative purposes when the question is given attention in other cities. The city chosen for study is Detroit, which had in 1927-28 a total of 46,748 public school pupils in the seventh, eighth, and ninth grades, about 25,000 of these being in fourteen inter-

mediate or junior high schools, and the remainder in eight-grade schools and four-year high schools.

In any fair consideration of the question before us it is necessary to keep in mind certain facts concerning these pupils and concerning young workers in industry and business. Most important of these facts are the following:

1. The median age of boys and girls entering the seventh grade of the Detroit schools in the school year 1927-28 was 12.52 years.*

2. The median age of those entering the ninth grade in the same year was 14.31 years.

3. The median age of those completing the ninth grade, the last grade of the junior high school, was, therefore approximately 15.14 years. Putting the matter in another way, about one-half of the pupils in the ninth grade reached at least 15.3 years of age before the opening of the next school year, 1928-29.

4. Because of retardation a considerable number of boys and girls in the seventh, eighth, and ninth grades became sixteen years of age before the opening of the next school year. This number cannot be determined accurately from the published retardation tables but is estimated at 2,154, which is 4.6 per cent. However, this seems low as in one intermediate or junior high school with an enrollment of 2,400, largely of Polish extraction, it was found by careful investigation that between April 1, 1927, and April 1, 1928, there were 201 girls, or about 16.6 per cent of all the girls in the school, who were sixteen years of age.†

5. The number of boys and girls who reach sixteen years of age while in junior high school seems likely to decrease rather than to increase. Persistent efforts are being made in Detroit, and the same is true in many other city school systems, to reduce retardation by grouping children according to ability and then modifying the program of work for the slower groups in such a way that the children may be saved from the bad psychological effects of repeated failure. The results of these efforts will show more and more in the next few years in reducing the number of older children in the higher grades.

*Statistical statements which are given here are based upon the 1928 report of the Detroit Board of Education.

†Robinson, Bertha M. An unpublished study.

6. Even with the enormous increase in senior high school attendance which has taken place in recent years there is and probably will continue to be, a large number who do not attend all-day school beyond the junior high school. In Detroit during the school year of 1927-28 the enrollment in the ninth grade was 15,307, while in the tenth grade the number dropped to 10,386. In other words, the difference between the ninth grade enrollment and that of the tenth grade was 4,921, or 32 per cent.

7. Of those who complete the junior high-school grades and enter senior high school, many will not continue their education in all-day schools more than one year longer. The enrollment figures for Detroit show a drop from 10,386 to 6,026, a difference of 4,360 or 43 per cent between the tenth and eleventh grades. The enrollment of the eleventh grade, it may be added, was 60 per cent, 9,271 pupils, below that of the ninth grade.

8. Many retarded pupils drop out without entering the ninth grade. In Detroit the difference in enrollment of retarded pupils in the seventh and ninth grades was 1,489, or more than one-third. At the same time the number of accelerated pupils increased slightly between these grades. In the junior high school to which reference has already been made in which were found 201 sixteen year old girls, only 50 of these remained at the end of the year covered by the study; and 37 others had been transferred to other day-schools. Nearly all of those who remained were in the ninth grade, hoping to complete the course. The drop-outs were mostly from the seventh and eighth grades.

9. Those who leave all-day school with no more than a junior high school education, that is, without going farther than the ninth grade include large numbers of boys and girls who are accelerated, or ahead of the normal grade for their age. To be sure, the percentage of retarded pupils who drop out between the beginning of the ninth grade and the beginning of the tenth grade is larger than the corresponding percentage for accelerated pupils; but the number of the latter who leave is surprisingly large. According to the Detroit figures for 1927-28, the retarded group entering the tenth grade is 43 per cent smaller than the same group entering the ninth grade; the in-grade-at-age group is 36 per cent smaller; and the accelerated group is 27 per cent smaller. In actual numbers the decrease in accelerates

between the ninth and tenth grades is 2,933, which is more than twice as great as the decrease in retarded pupils, for the reason that the former are much more numerous in the ninth grade of the Detroit schools.

10. The extent to which pupils drop out of the junior high school, and the grade at which they drop out are determined largely by the compulsory education and child labor laws of the state. The large loss of retarded pupils from the junior high-school grades, the larger loss of all groups between the beginning of the ninth and tenth grades, and the still larger loss the following year, is accounted for by the fact that boys and girls in Michigan may not leave school and obtain employment permits until sixteen years of age, unless their earnings are necessary for support of themselves or their family. In states which permit full-time employment at fourteen or fifteen the age and grade at which large numbers drop out of school is probably lower.

11. The great majority of wage-earning occupations which may be entered by youth at sixteen years of age or under require relatively little skill or technical knowledge. The time necessary to acquire the needed skill and special knowledge is small. Moreover, these may usually be acquired to better advantage in connection with the job than in a school before the job is begun. Still further, the relatively few who, at this age, enter occupations for which extensive preliminary training in all-day schools seems practicable are scattered among so many different occupations that the number in most of these is too small to justify the organization of classes.

A study* of 1,338 continuation school boys and girls, fifteen and sixteen years old, mostly sixteen, in Detroit, made in 1921-22 illustrates these points. Of the boys, 198, or more than one-third of those reporting on this item, were engaged in some kind of messenger or delivery service. The next largest group were in sales work or other store work, largely in small grocery stores and drug stores. This group numbered 76. The remainder were scattered among more than a hundred and twenty-five different kinds of work, the largest number doing the same thing, being 18, in printing. In each of 109 different kinds of jobs listed only one or two boys were employed. Of 753 girls, 346 were engaged in housework, either at home or for

*Crockett, Alex. C. and Clow, Jennie M. *Occupations of Junior Workers in Detroit.*

wages; 44 were telephone operators; 40, workers in tobacco factories; 34, grocery clerks; 32, general office workers (filing, etc.); 23, laundry workers; 22, stocks girls; and so on. Only 10 were book-keepers and stenographers.

According to the judgments of the boys themselves 88 per cent of them were engaged in work which required not more than one month to learn, and 65 per cent in work which could be learned in one week or less. According to the judgments of the girls, 97 per cent were doing work which required not more than one month to learn, while 75 per cent thought they could learn to do their work in one week or less.

12. It is becoming increasingly difficult for youth to enter the skilled trades, for which some school systems provide direct training in advance of employment, even as apprentices, at less than eighteen years of age. This is due in part to the attitude of employers, in part to the attitude of labor organizations, and in part to social and welfare organizations which have fostered legislation for the so-called protection of youth from hazardous employment. The substitution of machine work for hand labor, which has been taking place so extensively in recent years, seems likely to make this difficulty greater in the years just ahead than it is today. In the Detroit study already referred to, fewer than 60 of the nearly 600 boys reporting were found to be employed where they had opportunity to learn one of the well known skilled trades. The work of the printer, baker, butcher, and draftsman accounted for 33 of these. In this great metal trades center only 3 of these sixteen year old boys reported that their work gave them an opportunity to learn the work of the toolmaker and three more the work of the auto-mechanic. In the building trades in this city of more than a million population, 3 of the 600 were employed as painter's helpers, 3 in the same capacity in the plumber's trade, 2 in the electrician's, 2 in the steam-fitter's, 1 in the brick-layer's, and 1 in the carpenter's trade. The opportunities for sixteen year old girls in skilled occupations were, of course, fewer than for boys.

Here, then, we have a number of facts which must be taken into account in any thorough-going attempt to answer for Detroit the question which forms the subject of this paper.

The median age of the boys and girls when they enter junior high school is about 12.5 years. Of those who start the ninth grade, one-half are beyond 14.3 years. At the close of the junior high-school period, slightly more than one-half have passed their fifteenth birthday. In all of the junior high schools of the city a considerable number of pupils each year because of retardation reach sixteen years of age; the percentage for the city is probably about 5 but runs as high as 16.6 in one school which was studied intensively. Ability grouping and special curricula are tending to reduce this number. One third of these retarded pupils, 1,500 in round numbers, drop out between the seventh and ninth grades, and another 1,250 do not go beyond the ninth grade. Few accelerated pupils drop out during the junior high-school years; but between the ninth and tenth grades the loss of accelerates and in-grade-at-age pupils totals about 3,700. In other words, 3,700 of those not retarded close their schooling with the junior high school. And of all those who enter the tenth grade, 4,300 or more than 40 per cent will finish their schooling within a year. The point at which drop-outs become numerous is determined to a large extent by the compulsory education and employment permit laws of the state. Most of the jobs taken by boys and girls who drop out of junior high school or within a year after its completion, require little skill or technical knowledge. It is becoming increasingly difficult for a youth to enter a skilled trade, even as an apprentice at less than eighteen years of age.

In addition to these facts, one needs to have clearly in mind what is meant by the term, direct vocational training. Does it mean preparation to perform successfully the processes of a single occupation, for example, that of a plumber? Or are we thinking of preparation for those activities in which one engages as a wage-earner in contrast with preparation for those activities in which one engages as a consumer and citizen? In the one case, we are likely to think only in terms of training for skill in the performance of processes. In the other case, our thinking must be in terms of training for right attitudes towards work in general, towards some occupation in particular, towards employer, fellow workers, capital, labor, management, etc., as well as training for skill in process performance. It is in the latter sense that we are using the term, direct vocational training, to-day. The young worker who thinks of his job merely in terms of the wages it pays him, or whose prime concern is to do only

enough to get by, or who is indifferent to the men who work near him, or who believes that raw materials and labor are the only factors which determine the cost of production of the article which he helps to make is often under a more severe vocational handicap than the one who starts work without previous training in the processes of his job.

With this background, let me present briefly what I think the junior high schools of Detroit should do with reference to the entire range of vocational interests and needs of their boys and girls, and then consider how much of this deserves to be called direct vocational training.

The first responsibility of the junior high schools in this important matter is to give the best assistance possible to their pupils in making suitable choices of occupations. It is not to be expected, of course, that all junior high school pupils will make a final choice of occupation. Many will hold open this question until later. Others will decide only upon a field of occupations. Others will change their choices later. But all should be expected to give the question of a suitable occupation serious attention under wise guidance. This applies to the boy or girl who is going through high school and college as well as to the one who will go no farther than the ninth grade. We have no right to send the former on, looking forward to a career chosen through caprice of childhood or a whim of father or mother, without doing our best to help him find out whether this career or some other is best suited to his capacities and interests and holds greatest promise for his success and happiness. Nor are we justified in directing, or even in permitting, the latter to spend a lot of time in preparation for a particular trade or other occupation until we have given him the best assistance we can in choosing the occupation for which preparation is to be made. This, to be sure, is a problem of vocational guidance and cannot be discussed in detail here. It may well be noted in passing, however, that it involves a study of the large groups of occupations—agricultural, mining, manufacturing, transportation, trade, clerical, public service, professional service, domestic and personal service—in the seventh and eighth grades. It involves later a study of the opportunities and requirements of a considerable number of occupations which are of greatest local importance. It involves provision for a variety of exploratory experiences which have significance in discovery of vocational aptitudes

and interests. It involves bringing together as complete information as possible concerning each pupil's personality traits. And it involves expert assistance for each pupil by the vocational counselor in evaluating occupational information and exploratory experiences in relation to personality characteristics.

The second responsibility, as I see it, is to aid each boy and girl before leaving the junior high school to work out a vocational plan for the future. Some will soon forget their plans, many will change them, a few will carry them through, but nearly all will profit by going through this process under the guidance of a wise counselor, and working for a time at least towards the realization of the plan. In case of the boy or girl whose choice of occupation requires graduation from senior high school and college, the plan would naturally be preliminary or tentative or in outline form only, with the expectation that it would be expanded and filled in as to details later. In case of one who expects to leave school at sixteen years of age but who wishes to become a skilled worker in some particular trade, machinist for example, the plan should include what special preparation is to be made before leaving school, where this is to be obtained, what kind of work to do after leaving school until he is old enough to obtain employment as an apprentice or helper in a machine shop, what continuation and evening school work to do preliminary to and during employment in the machine shop, and so on.

A third responsibility of the junior high school is to develop in its pupils a respect for all vocations and an appreciation of the importance of them all to human welfare and progress, and to build up in its pupils that attitude towards work and towards the various responsibilities and relationships of the worker already mentioned, without which the completest success and satisfaction in any occupation is impossible.

Achievement of these desired ends depends upon the understanding of some of the fundamental but simple facts and principles of economics; for example: how capital is produced; the relation of capital to production of goods; the interdependence of capital and labor; the relation of management to production; the dependence of production upon transportation; selling in relation to production; and others. Consideration of such questions as: What the employer pays for and has a right to expect in quantity and quality of service,

in coöperation, and in loyalty; and how friendly relationships between fellow workers are mutually helpful contribute also to development of the desired attitude. And it should be kept in mind that the understanding and attitude discussed here constitute a vocational asset of decided value in any employee position, though the immediate value will be greater to those who are about to leave school for the purpose of entering employment.

The fourth responsibility of the junior high school in vocational matters is to make provision, either within its own organization or in a special vocational school, for certain of its pupils who are approaching sixteen years of age and who are not likely to continue their schooling much if any beyond the ninth grade, to obtain some preparation for specific occupations. In Detroit it seems to me that for boys these occupations should include the machinist's trade, auto-mechanics, both of which are now taught in selected junior high schools and in a central trade school, drafting, printing, and several of the building trades including carpentry, plumbing, electrical work, bricklaying and painting and decorating. (Some of the building trades are now taught in a vocational school.) Probably more careful study would result in suggesting provision for classes in baking, lithographing, sheet metal work, and other trades, and for retail selling.

For girls the problem is more difficult. But, with so large a proportion of girls who leave school at sixteen years engaged in house work and in restaurants, cafes, and the like, a vocational course in home-making in its broader sense and in those aspects of domestic and personal service which center in the home and in the public eating place, would seem to be practicable for retarded groups. General office work and filing might be provided for those who complete the ninth grade but go no farther. Retail selling is another occupation which could be taught to older girls of the ninth grade.

Naturally the question immediately arises: How are either boys or girls going to obtain employment at sixteen years of age in the occupations for which training is provided? There are numerous opportunities for girls of this age in the occupations mentioned; but very few for boys, as we have seen. It would be possible, however, for a few of the boys to be placed in apprenticeships or in a co-operative training program even at sixteen; for others to continue

their trade preparation in continuation schools while working at unskilled work, pending a chance for placement by the school system in apprenticeships; and for still others to continue their trade preparation in a full-time trade school until such time as they can be placed in apprenticeships.

It is assumed that those who would take these vocational courses do so only after careful guidance including exploratory experiences and expert counseling. It must be understood, also, that the vocational courses provided should be genuinely vocational in character and not planned merely to provide convenient parking places for retarded boys and girls until they reach the age at which they may leave school. Of course it is not necessary that all of the courses should be of the same length. Some should extend throughout the school year; others might well be planned for one semester only; and others might cover still shorter periods.

All that I have proposed has to do directly with the vocational problems of junior high school boys and girls. But not all can be called direct vocational training. Of the four responsibilities presented, the first and second have to do with guidance preliminary to vocational preparation, whether the preparation is obtained in junior high school, senior high school or later. The last is definitely a vocational training responsibility.

It seems likely that when fully organized, such work as proposed might care for the pre-employment vocational skill and technical knowledge preparation of the 6,500 pupils in Detroit who do not go beyond the ninth grade. It must be expected, however, that many of these will continue to enter occupations for which no training in work processes should be provided by the school.

The third responsibility presented, that for developing right vocational attitudes, is also direct vocational training, in that it is concerned with preparation of youth for the activities of a wage-earner rather than for those of the consumer and citizen. This responsibility affects most directly the 6,500 mentioned above. It affects only slightly less directly the 4,300 others who complete the ninth grade but do not go beyond the tenth. And it affects, also, though less immediately, the remaining 6,000 who continue their education further. This responsibility is as yet an unaccepted and in most cases an unrecognized challenge to the junior high school.

All that is here discussed is in the direction of bridging the gap between school and employment. The junior high school has done fine service in bridging the gap between the elementary grades and high school. Here is another gap, wider and more dangerous, which results in enormous social and economic waste every year. More or less directly it threatens all junior high-school boys and girls. While significant work is under way in many schools, the much needed bridge is still far from complete.

What May the Senior High School Demand of the Junior High School, read by Assistant Professor of Education T. T. Spaulding of the Graduate School of Education, Harvard University.

WHAT MAY THE SENIOR HIGH SCHOOL DEMAND OF THE JUNIOR HIGH SCHOOL?

F. T. SPAULDING,

ASSISTANT PROFESSOR OF EDUCATION, HARVARD UNIVERSITY

There is a phrase which seems to epitomize in a few words the ambitions of many people—teachers and administrators alike—whose interests are in the junior high school. The phrase is *freedom from the domination of the senior high school*. I quote it from no one in particular: doubtless I have heard it, in just that form, from no one person. But the spirit which lies behind it is apparently more or less widespread. It is a spirit of resentment as well as of aspiration: resentment at suspected attempts by the senior high school to control the program of studies and methods of teaching in the junior high school, and aspiration toward a happier day when the junior high school may be completely free to work out its own salvation.

It is possible that both the resentment and the aspiration underlying this phrase are in certain respects unfortunate. I hold no special brief for the senior high school. But junior high schools have tended in numerous instances, I think, to seek a degree of freedom which can hardly be justified. In particular, they have slighted demands which the senior high school may properly make upon them. It is highly desirable that some agreement be reached as to how far the junior high school should actually be free from restriction.

In all fairness we need first to consider the major arguments upon which the junior high school bases its claim to freedom. The justice

of the senior high school's demands must obviously be determined, in part, by the strength of these arguments.

Certain of the arguments are very general. One has to do with the fact that to those who have been intimately concerned with it, the junior high school represents a thoroughly experimental undertaking. Its goal is for them a changing one, but one which is none the less reasonably clear: more and more adequate provision for the interests, needs, and capacities of boys and girls in early adolescence. The means by which this goal is to be reached are, however, much less clear. Certain procedures have been evolved, certain types of subject matter more or less standardized, which promise greater effectiveness than the procedures and the subject matter in traditional use. Yet even these improvements are merely tentative: the thing needful is that they in turn shall be experimented with, until something still better appears. In many matters improvement has not yet been achieved; experimentation is even more necessary there. Hence junior high-school principals and teachers are inclined to demand what any experimenter must demand: that they be let alone—left free to work toward the admittedly desirable goals which they have in mind. And the senior high school does not let them alone. It seems to them to insist on uniform methods of teaching; on a curriculum that "stays put" from year to year; on a standardization, in brief, that is the very antithesis of experimentation.

A second general argument is apparently based on the fundamental postulate that education should concern itself at each stage with immediate living, not with mere preparation for later living. Accepting this postulate, protagonists of the junior high school find in it a significant implication. Each part of the school system—so the implication runs—must discover its aims and its methods in the needs of the pupils with whom it is immediately concerned. Certain of its aims will be established for it, perhaps, by the shortcomings of preceding parts of the school system. Thus the junior high school may have to concern itself with training which the elementary school should have provided, but has been unable to provide. But beyond the inevitable responsibility for doing necessary things which the lower grades have left undone, the junior high school should be untrammelled. It should be free to determine its own aims in terms of the present needs of its pupils, and to realize those aims through the

most effective practice which it can achieve. It should be able, moreover, to count upon the senior high school's doing for it, what it has accepted responsibility for doing on behalf of the elementary school—that is, it should be able to expect that the senior high school will accept its pupils at the level to which the junior high school has succeeded in bringing them, will supply the deficiencies which the junior high school has been unable to remedy, and will in its turn, carry onward the educational progression. A not unreasonable program, surely; and one which asks of the senior high school only what the elementary school already demands of the junior high school. But the senior high school seems to reject it, insisting on fixed levels of achievement which tend to make the junior high school a mere servant of the school above and of the school below.

In addition to these general arguments there are others, more specific. These are likely to take the form of critical opposition to certain policies of the senior high school. They are, in the main, subordinate to the major arguments already stated, serving to illustrate what happens to the junior high school when its demands for freedom are not respected.*

It is asserted, for example, that the senior high school greatly overemphasizes purely academic achievement. The high school as a whole was formerly, of course, a much more selective institution than it is now, enrolling a group of pupils with predominantly academic interests and abilities. Changes in social conditions and changes in our educational philosophy have drawn attention to the needs of great numbers of boys and girls whose education must follow other than academic lines. Yet the senior high school has been only in part responsive to these changes. Its teachers, themselves trained in the academic tradition, have openly or tacitly deprecated other types of education and achievement than those of an intellectual sort, and have continued the process of selection on an academic basis. The junior high school, meanwhile, has recognized the need for secondary education on the part of all boys and girls, and has made rapid progress toward provision of many other types of education than those

*Statements of certain of the criticisms here dealt with are offered by Ferguson, A. W.: "Articulating the Junior and Senior High Schools," *School Review*, XXI: 540-46 (Sept. 1923); and by Newlon, J. H.: "The Articulation of the Junior and Senior High School," *Official Report*, Department of Superintendence, N. E. A., 1927.

stressing purely intellectual competence. But its efforts are largely frustrated by the policy of selection still exercised by the senior high school. So long as the senior high school continues to dictate standards for admission, so long, especially, as the senior high school exercises selection on an intellectual basis, just so long must the junior high school inevitably fail of its fullest possible accomplishment.

It is further asserted that the means by which the senior high school measures accomplishment fail to do justice to the junior high school. The junior high school has been more sensitive than has the upper school to improvements in teaching procedure. In particular, it has recognized the advantage of the psychological over the logical presentation of subject matter. Its work has tended to become organized in terms of its pupils' interests and needs as learners, in such manner as to allow at each successive stage for the acquirement of units of subject matter which present significant problems to adolescent boys and girls, even though those units are to be found in the middle of traditional subject-matter fields, or cutting across two or more fields, or in no traditional field at all. The senior high school, by contrast, has retained a thoroughly logical method of presentation. It has insisted on beginning in each subject with those definitions, axioms, and skills which are fundamental to one who has become a master of the subject, but are meaningless to one who sees as yet not even the need for mastery; and it has proceeded from these logical beginnings in an equally logical, cyclopedic fashion to an eventual mastery of the subject for those few whom its methods have not succeeded in eliminating. More than this—and here the junior high school is directly affected—the senior high school has sought to gauge junior high school achievement on this same logical basis. Accomplishment in general mathematics, for example, it tests in terms of a knowledge of logically classified algebraic formulae, geometric axioms and propositions, and mathematical definitions; achievement in the social studies it interprets on the basis of historical and geographic facts acquired; success in the study of English literature it measures in terms of ability to distinguish one form of prose or poetry from another, or to list the essential characteristics of Hawthorne's work. And finding itself in a position to judge the education imparted by the junior high school, it does judge it, and on a logical basis finds it wanting, and exerts pressure to undo those very reforms which the junior

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high school has been striving to bring about. (Thus runs the argument from the standpoint of the extremist.)

There are other criticisms than these directed against the senior high school, in an effort to demonstrate the junior high school's need of freedom from restriction. The upper school's subservience to college entrance requirements, its dependence on textbook instruction, its failure to provide for pupils' initiative, have their parts to play. Not all these criticisms are applicable, of course, in every junior-senior high-school situation. They may serve as a whole, however, to indicate the arguments which the senior high school must meet if it is to justify itself in making definite demands upon the junior high school.

I have already suggested that I believe it can justify itself in such demands. It can do so in part because of certain fundamental weaknesses in the arguments which we have cited. As a preface to a consideration of the senior high school's point of view I should like to list these weaknesses, and to list them in somewhat positive fashion. They seem to me to be at least three in number. First, the arguments proposed conceive that each part of the school system has a definite responsibility to the grades below it, but no very definite responsibility to the grades above it. That is questionable. Second, the arguments proposed imply that the junior high school's program is thoroughly justified by the improvements which it has brought about. That is questionable. Third, the arguments proposed assume the selective duties of the senior high school to be on the same plane as those of the junior high school. And that too is questionable.

Consider the first of these three objections from the senior high school's point of view. Junior high school and senior high school alike are parts of a supposedly coördinated school system. If the coördination is to be real, and not merely supposed, each part of the system must recognize in definite terms the educational tasks which are entrusted to it. In a measure, however, it can recognize these tasks only if it knows on what it has to build. The junior high school must know what experiences the elementary school has provided for its pupils, and what the results of these experiences have been, in terms of habits, knowledges, and attitudes acquired. The senior high school, in turn, must know what it can expect of its pupils as a result of their junior high school education. Some statement of definite outcomes each part of the system must give, if there is to be coördination worth the name.

It is in the face of this need for a statement of outcomes that the junior high school proposes to experiment. The elementary school provides, on the whole, conditions favorable to this experiment: it is not unwilling to state in more or less specific terms just what the junior high school is to expect of entering pupils. But the junior high school sees in its experiment an argument for avoiding a corresponding statement of its own outcomes. Establish stated goals of achievement and the freedom necessary to experimentation will be lost! The junior high school has accepted elementary school pupils without argument; without argument, likewise, the senior high school should accept junior high school pupils! And because of its urge to experiment, the junior high school loses sight of the fact that it is refusing to do for the senior high school what the elementary school is willing to do for it. It may have recognized its responsibility to the grades below, but it has declined to recognize its parallel responsibility to the grades above.

The senior high school's concern with the achievement of junior high school pupils is not limited, moreover, to the matter of average or gross achievement. Beginning with the ninth grade and continuing in increasing degree through the senior high school grades, the factor of elimination becomes of serious moment. With this factor must be considered also the need for increasing specialization. The junior high school can receive from the elementary school, pupils of very heterogeneous abilities and accomplishments, and because of its relatively large grade enrollments and the general nature of its program can organize class groups which provide more or less adequately for individual differences. The senior high school, dealing with fewer pupils and with pupils whose interests are becoming increasingly specialized, is at a serious disadvantage in this respect. Its entering groups must be more homogeneous than the entering groups of the junior high school, if it is to provide in comparable manner for individual differences; it must lean even more strongly than must the junior high school upon the attainment of definite standards in the grades below. Hence the failure of the junior high school to determine its standards represents no inconsiderable handicap upon the work of the upper school.

The senior high school's demand for a statement of outcomes is strengthened by the second possible weakness in the junior high school's position. The junior high school has tended to assume that

its plea for freedom is justified by the improvements which it has brought about. The senior high school has asked, in effect, what improvements? and by its own standards has tested the achievements of junior high school pupils and found them wanting. The junior high school may rail at the standards which the senior high school sets up; it may talk in glowing terms of the development of responsibility, initiative, educational and vocational perspective, social intelligence; but the fact remains that we have no sure evidence whatever that junior high school education is more effective than the type of education which it displaces, and we have some evidence tending to show that it may, in certain respects at least, be less effective.*

It is true that our inability to demonstrate the effectiveness of junior high-school education may be due in part to the nature of the measures applied to it. Those which have been used perhaps fail to touch directly upon the type of achievement with which it is most concerned. This point, certainly, is one which can be raised with justice against the evaluation of the junior high school on the basis of traditional senior high-school standards. But it does not alter the fact that the junior high school has as yet set up no satisfactory means for measuring its own complete success, and that if the senior high school is to use definite measures it must employ largely those of the traditional type. Some record of achievement the senior high school must have; and lacking measures which are thoroughly acceptable to the junior high school, it adopts those which it finds of greatest service to itself.

The third weakness in the junior high school's arguments concerns the selective function of the secondary school. There would seem to be a growing tendency to assume that every boy and girl can profit by almost unlimited education on the secondary level, provided only that we can find the type of education appropriate to his or her interests and capacities. It is conceivable that there is sound basis for that assumption. If there is, it would in a measure justify the junior high school in attempting to send on to the senior high school all boys and girls who have had a satisfactory record of attendance in the seventh, eighth, and ninth grades. It would in a measure justify also the junior high school's demand that the senior high school make full provision for these pupils according to their

*Cf. Powers, J. O.: *Instructional Outcomes in Junior High Schools*, University of Minnesota Press, 1927; and Ferguson, A. W., *op. cit.*

individual interests and capacities. But we are by no means certain that unlimited secondary education for all pupils is profitable, either to individual pupils or to the agencies which bear the cost of their education. It is possible that in the case of every individual there is a point of diminishing returns beyond which the gain accruing from further school training of any type which we know how to provide is slight—so slight that its value is doubtful. If such a point exists, it cannot, of course, be determined wholly on the basis of so-called abstract intelligence. Other factors—notably those of social intelligence and of manipulation or mechanical intelligence—also enter in. Our present civilization seems to place so large a premium upon intelligence of an abstract sort, however, that in the upper ranges of our educational system—even in secondary education itself—it has come to be of predominant importance. If, therefore, the secondary school is to justify its program on the basis of fair returns from the investment which it represents, it may need to set a limit upon the amount of education which it offers to many of its pupils, and it may need to set this limit very largely in terms of intellectual competence.

So little do we know about the ultimate possibilities of education that we cannot be sure at the present time either where such a limit as this is to be found, or whether, indeed it can be permanently established. We do know, however, that we are not at present equipped and that we do not know how to offer thoroughly appropriate education to certain pupils who reach the secondary-school level. For pupils whose interests are largely academic we can provide more or less adequate training. But for boys and girls whose interests and abilities lie in non-academic fields, even our best conceived educational efforts seem to prove increasingly ineffective as these pupils move upward through the secondary-school grades.

From the senior high-school standpoint this may fairly be interpreted as pointing to the desirability of purposive and progressive elimination of certain pupils. Present knowledge and present conditions tend to bring about this elimination, largely, though by no means entirely, in terms of abstract intelligence. Our standards may, of course, shift as we learn more about educational possibilities. But if the desirability of progressive elimination is admitted as at least a tenable hypothesis,—and this it would seem to be,—then one can hardly interpret its exercise as a sign of the senior high school's neglect

of its responsibilities. It is a thoroughly defensible conclusion, indeed, that the senior high school cannot do full justice to its task if it regards mere completion of the junior high school program as an open passport for admission to senior high-school offerings.

Such, in brief, is the senior high school's reply to the junior high school's argument for complete freedom from restriction. The usual rejoinder from partisans of the lower school is that the senior high school does not understand; and there results a flurry of conferences, committee meetings, and extension courses by university professors, all instigated by the junior high school in an effort to make the senior high school see the light. It is true, I think, that the senior high school does not wholly understand. It does lose patience with the junior high-school experiment; it is inclined to demand a fixity of outcomes which is out of harmony with that experiment; it does tend to emphasize purely academic accomplishment and to apply logically academic standards in ways which call for fundamental modification. But the junior high school, in its preoccupation with its own problems, likewise fails to understand. And no amount of propaganda merely from the junior high school point of view is likely to bring about effective coördination between the two schools. Some middle ground of understanding must be achieved through which a just limit may be set upon the demands which either school may make of the other.

What this middle ground may fairly be becomes apparent if we put side by side the conflicting demands of the two schools. The junior high school seeks freedom to experiment in the achievement of its own special functions; the senior high school demands a statement of more or less fixed outcomes. The junior high school seeks a judgment of its pupils' achievement in terms of its own conception of accomplishment; the senior high school insists on more or less traditional measures of success. The junior high school seeks admission of its pupils to the senior high school as a result of the completion of junior high school work; the senior high school persists in exercising selection, either at the time of admission or as a result of demonstrated success or failure in established specialized courses. In substance, the junior high school demands such flexibility as will make progressive revision and improvement possible, while the senior high school expects a fixity which will provide a consistent basis for its own work. We can fairly grant the partial justice of both sets

of demands. The problem is obviously that of satisfying each without undue prejudice to the other.

If the two schools can agree upon a reasonable measure of fulfillment of those junior high school aims which most directly affect the senior high school, then the first of the upper school's specific demands may be met. Agreement in this case cannot fairly mean, of course, dictation by the senior high school as to what the junior high school should achieve. The lower school's need for all possible freedom makes desirable the statement by the junior high school itself of its own aims as they affect the upper school, and should lead to acceptance of these aims by the senior high school, in parallel with the junior high school's acceptance of the aims of the elementary school. But the needs of the senior high school are hardly to be met through a mere general statement of the junior high school's intentions. We have had statements of this sort, time and again; and still the senior high school's dissatisfaction with junior high school work has persisted. What is required is, in the first place, a declaration of the junior high school's purposes in terms of definite, achievable results, and, in the second place, an agreement conscientiously to achieve these results. This is not to be interpreted as implying that the specific functions of the junior high school are to be "standardized," once and for all. The school's promise of performance may properly be altered whenever circumstances make alteration necessary or desirable. It does imply, however, that the junior high school should draw up for itself a statement of specific aims so framed as to make possible a promise of dependable achievement; that the promise thus given should not be subject to change without notice; and that once given this promise should be conscientiously fulfilled for the period to which it applies.

What are the aims of the junior high school which bear most directly upon the senior high school's work? One is that of training in fundamental operations. Another concerns the provision of survey and tryout courses, for the purpose of developing pupils' intelligent insight into the major fields of human activity. Still another has to do with the choice of further education on the part of pupils who have completed their junior high-school work. In these matters particularly, the needs of the senior high school call for definite statements of expected achievement.

The exact level or direction of such achievement must of course be determined in large measure by each junior high school for itself. Its own conception of its fundamental purposes, its own special task as defined by local conditions, its individual capacity for achievement, will of necessity influence its decision. But the fact that different schools must define their aims in somewhat different ways does not affect the justice of the senior high school's demand for some such definition of the aims bearing directly on upper-school work. In the matter of training in the fundamental operations the senior high school may expect the junior high school to establish reasonable standards, and to devote all necessary attention to the achievement of these standards. In the matter of survey and tryout courses, though it cannot fairly attempt to restrict the means by which the junior high school is to achieve its purposes, the senior high school may properly seek definite indication of the various fields of activity to which junior high school pupils have been introduced, and of the effect which their work may be expected to have had in preparing them for senior high-school courses. And in the matter of choice of further education the senior high school may justly ask that pupils who come to it from the lower school shall already have made an intelligent choice of their fields of senior high-school specialization. Such requirements as these do not unduly restrict either the junior high school's opportunity for experimentation or its right to determine its own peculiar functions, and they do add measurably to the possible effectiveness of the senior high school.

Through agreement upon reasonable fulfillment of junior high-school aims the second of the senior high school's demands will already have been partly met. The upper school must know, in terms of individual pupils as well as class groups, upon what types and on what levels of accomplishment it is to build. Because of existing differences between the two schools in methods of teaching and in organization of subject matter, it is especially important that the junior high school should report in detail just what it has achieved. The teaching of general mathematics may not have produced the outcomes which are to be expected from the teaching of first-year algebra, but it has, undoubtedly, produced outcomes of value. The senior high school should recognize this fact. So with the other reorganized courses of the junior high-school curriculum. It is to the distinct advantage, rather than to the disadvantage, of the junior

high school that it inform the senior high school in detail of its pupils' accomplishment. With detailed individual and class records at hand, the senior high school cannot fairly judge the lower school's work on the basis of traditional standards alone.

The third ground for disagreement—that of the selection exercised by the senior high school—is complicated by the upper school's difficulties in providing for markedly heterogeneous class groups. Under an ideal educational system, perhaps, the senior high school ought to be willing to accept any pupils for whom the junior high school has done approximately all that it can do. But present conditions demand the education of pupils in groups rather than individually. Under these conditions the effectiveness of the senior high school's work must inevitably depend in large part upon the homogeneity of the groups with which it has to deal. If the junior high school adopts the extreme policy of sending on to the senior high school all pupils who have passed the junior high school age, the needed homogeneity is almost completely destroyed. Some standard of promotion short of this must obviously be adopted.

What that standard may properly be will be determined in a measure by the size of the senior high school's enrollment. In a small school the need to provide for pupils who differ markedly from the average—especially for those who are far below average—presents serious difficulties because of the practical impossibility of dealing adequately with such pupils in organized classes. The larger the school the greater is the opportunity for establishing classes of pupils markedly above or below average. Similar considerations apply also, of course, to the junior high school's organization of its own classes. But they do not affect the junior high school and the senior high school in equal measure. Whether the senior high school is large or small, the junior high school's greater enrollment and the nature of its program allow it to deal with stragglers more effectively than is possible in the upper school. Hence the senior high school is entitled to a measure of special consideration. It may with justice expect the junior high school to exercise definite precaution in its promotions to the upper school. On the whole, it may fairly demand that the junior high school limit its regular promotions to those pupils who form groups homogeneous enough to be dealt with adequately on the necessary class basis.

Whether the senior high school can justly persist in its policy of selection in terms of intellectual competence must for the present remain a moot question. The arguments for selection on the one hand and for universal secondary education on the other are based on considerations which appear to be more or less equally valid. A choice between them must of necessity be determined rather by philosophic conjecture than by objective proof. Thus, for the time being, it is likely to happen that in certain school systems the senior high school will set definite standards for selection, while in others the senior high school will open its doors to all pupils who have completed the work of the lower school—and neither group of schools would seem able to prove its own policy more fundamentally justifiable than that of the other. One matter, however, is essential: that whatever policy is adopted in a given system should be recognized by junior high school and senior high school alike. Otherwise there will exist a fundamental and permanent conflict between the schools. Hence, even though resort to majority vote is necessary to make possible an ultimate decision, one policy or the other needs to be definitely chosen and adhered to.

At least three things, then,—if we expect this matter of policy,—the senior high school may demand of the lower school. It may demand that the junior high school fulfill its own agreed-upon functions, with respect especially to training in fundamental operations, survey and try out, and guidance in the intelligent choice of specialization. It may demand that the junior high school inform it of the specific achievements of individual pupils and groups of pupils promoted into the upper school. And it may demand that pupils promoted from the junior high school shall form groups homogeneous enough to be dealt with adequately in the senior high school.

To expect that even these just demands can be complied with as soon as they are expressed would be patently absurd. They must inevitably call for questioning, criticism, and revision of methods and materials on the part of both schools. But the necessary adjustment between the schools is not likely to be achieved until the demands are made. Continued search by the junior high school for freedom from domination will not bring this adjustment, nor will it come from a mere reiteration of the junior high school's functions. It is time that the senior high school asked and insisted upon answers

to certain pertinent questions: What part of the functions which you profess do you expect actually to fulfill with the pupils whom you send on to us? What are the definite achievements of these pupils whom you expect us to take? What assurance is there that we can deal successfully with your pupils under the conditions which we are obliged to face?

JUNIOR COLLEGE SECTION

FIRST SESSION

In Parler H of Hotel Winton on Tuesday, February 26, at 2:00 p. m. a section for the junior college delegates was held. Principal Francis L. Bacon, Township High School, Evanston, Illinois, was chairman.

Professor W. W. Charter's paper, *Functions of the Junior College*, was read by Mr. Oppenheimer.

FUNCTIONS OF THE JUNIOR COLLEGE

W. W. CHARTERS,
OHIO STATE UNIVERSITY

The functions of the junior college have emerged from specific local conditions and with the passing of the years these functions have evolved in response to educational demands.

The first well-known junior college and the one which gave concrete body to the junior-college idea was established at the University of Chicago by President Harper at the beginning of the twentieth century. The function of that junior college was, in theory, a terminal one. It was intended for students who wished no further schooling. In practice, however, it was chiefly preparatory for a professional curriculum.

Thus emerged the preparatory function of the junior college and later this germinal idea has been elaborated in a variety of ways. The junior college has come to be looked upon by the professional schools as an institution to offer courses which prepare for the more intensive professional work of the schools. Hence have arisen pre-medical, pre-dental, pre-legal, and pre-engineering courses. The professional schools reaching down into the junior-college area prescribe preparatory and fundamental courses which, in the judgment of the professional schools, will facilitate professional training but which, for lack of time, cannot be offered in the professional schools.

The junior college from this point of view provides a preparatory curriculum for those who intend to pursue their education to gradua-

tion with a university degree. But it provides preparation in another form. It gives the student the opportunity to study his aptitudes as he gains greater maturity. Over half the graduating class of 1925 in an important university changed their choices of vocation at least once during their undergraduate careers. This alteration of choice necessarily dislocates a student's program and hampers his efficiency greatly. Hence a period of "shopping" among professions is highly desirable. This is provided by the Harper type of junior college and is one of the reasons for the delay of professional training until after two years of junior-college work has been taken.

Unfortunately, however, this period of orientation has not been utilized to the best advantage by the universities. The orientation is still largely a hit or miss procedure carried on by the student himself with meagre assistance from the university. However, we find that advice is being increasingly given to students. Several institutions are offering courses in the junior-college division in which the opportunities and limitations of the professions are discussed and compared with the native qualifications of the students. Aptitude tests are being slowly developed and applied as rapidly as they are developed to the students as a routine procedure of the junior college. Vocational-guidance officers are installed in other institutions whose major responsibility is assistance to students in selecting a profession for which they are best fitted and particularly to divert them from professions for which they have little native aptitude.

In these two respects—curriculum preparation and vocational choice—the junior college has an important preparatory function.

The second function of the junior college emerged historically in connection with the private independent junior college. The first conspicuous examples of the type originated in the state of Missouri in the second decade of the present century. Prior to 1910 there existed in Missouri and elsewhere, a very large number of women's colleges which were colleges only in name. In substance they were high schools of quality none too good which gave some advanced courses and conferred a baccalaureate degree which was recognized neither by the students nor the faculty of the colleges conferring the degree; nor by graduate schools or universities as standard in quality. Interestingly enough these colleges competed with the state universities of the Middle West for students by employing agents to

canvass the young women students in the high schools. They also competed with the local high schools for students. It is recognized, as a matter of course, that during fifty years these colleges had performed a service of value when public high schools were scarce and state universities were small and poorly supported institutions. But when the high schools had increased to the point where every community was provided with a good high school, the women's colleges began to be pinched in their enrollment. When, in addition, the state universities had secured funds sufficient to maintain excellent faculties and curricula and when the parents of young women discovered that credit from women's colleges would not be transferred without loss, the women's colleges began to be pressed from above. In this situation, it was necessary that the colleges change their policies or close.

At this point President Hill of the University of Missouri formulated a policy for the colleges to the effect that they should discard their pretentious degrees and do two years' college work well. In such fashion the accrediting of junior colleges by the University of Missouri arose. The function of this private junior-college movement was distinctly that of improving the scholarship of private women's colleges of the type just described. That this service was performed is evidenced by the fact that a score of these colleges, nearly all of which would have become extinct, are operating as respectable institutions of learning which no longer compete with the local high schools and which supplement the training given in state universities. The state institution is thus relieved of the training of a number of young freshmen and sophomores and can devote its attention more fully to the primary university function of training for the professions and for research.

A third type of junior college illustrates a third function of the institution. The public junior colleges of California are the earliest examples of the effort to spread collegiate education widely among the communities of a state. It is a matter of common knowledge that a large majority of the students in a great university live within a radius of sixty miles around the institution. This fact means that whenever a college is located in a community, a very great number of students who would not have attended if the school had not been located nearby, now secure a college education. The reason for this increase in enrollment in college by the establishment of new colleges

is simple. The apparent cost of education is reduced to limits within the family budget. A family might not be able to provide the funds necessary to feed and house the child away from home and yet be able to absorb these items in the home budget if the child lives at home. This difference in cost might be the crucial factor in providing a college education for the children in the family. Then, too, parents are anxious about the moral welfare of their immature children who in a distant institution may be perilously placed upon their own responsibility. For such parents the presence of a college in close proximity to the home again becomes a crucial factor in the decision to support children for a longer period while they prepare themselves more fully for life in college.

While the public junior college lowers the cost of education to the family, it similarly provides college education for two years at a lower cost to the community. Not all taxpayers realize the fact that education in the junior college costs the taxpayer a lower amount per capita than does the senior college and the professional school. They do not understand the financial importance of full sections. By that I mean this. In the junior college only elementary courses are taught—courses such as freshman English, beginning French, and the like. The courses are few in number in relation to the number of students. Consequently, all the classes and sections are full of students. In the senior colleges there are many advanced elective courses and necessarily only a few students enroll in each. Thus in the junior college the faculty is small and the student body large. While in the senior college the faculty is large and the number of students relatively small. Consequently, for the taxpayer, the junior college provides the cheapest form of higher education.

From the point of view of society, this demonstration of higher education is the fundamental function of the junior college. It provides an enlarged opportunity for a higher education for an increased number of individuals and thereby approaches the ideals of equal opportunity for the people.

The study of a fourth type of junior college reveals another significant function of the junior college. This is the municipal junior college. Its functions are numerous and parallel the functions of other types already mentioned. It has a preparatory function like the Harper type. In increasing numbers its graduates enroll in pro-

professional schools and it is hoped by universities that in time the local junior college will be the accepted channel through which all students will flow into the professional schools. Johns Hopkins is at present insisting that all the students in its professional schools shall be trained in other institutions. Many pressing problems of many state universities would be solved if all freshmen and sophomores were trained at home in junior colleges. The municipal junior college functions also, as do the public junior colleges in California, in democratizing college education.

It has, however, another function and it possesses certain significant opportunities which these other types do not possess. It becomes a terminus of secondary education. In the other three types we feel that the junior college is part of the university. Harper's was preparatory to the university. The private junior college is a two-year unit isolated from the high school below and from the university above. Students who go through the private junior colleges are educated in three systems—the public high school, the public junior college, and the university. The same is true of the regional junior colleges of California. They are isolated from the high school. The municipal junior college, in contradistinction, is or may be, an integral part of a system that controls education from the kindergarten up through the junior college. So in the municipal junior college we have the outstanding example which illustrates the claim of educators that the junior college is a secondary school.

Because the junior college is the apex of an educational system, it lends itself to the function of providing what is known as terminal education. It can, to an unequalled degree, prepare students for those vocations or for those positions within vocations which are better filled by people with an advanced education but not requiring a complete professional education. Situated as it is in an urban center with many opportunities for superior persons in business and in the skilled vocations, it is sensitive to the needs of the city and responds by providing terminal vocational courses.

The number of such terminal opportunities is great. In business, for instance, there is an increasing demand for executives who have a somewhat better training than the average of the employees. For these positions college graduates are popular. But it is not at all certain that four years in college is a better preparation for service

in business than two years in college and two years in business. That is to say, there are substantial reasons for believing that a graduate of a rigidly professional business curriculum in a junior college will be as well fitted for business at the age of thirty, let us say, as is a graduate of a four-year college. The junior-college graduate is compelled to take minor positions and in working is sent up through to major positions whereby he learns the business. The four-year college graduate skips much of the drudgery or is delayed for two years, and in escaping the drudgery he loses an important element in his executive background.

Other types of terminal training come easily to mind. The occupation of nurse is one in which a woman is not justified, in terms of economic returns, in taking a four-year college course nor has the state a right to demand it until the returns are more equitable. Minor specialists are needed in industry. In chemical laboratories situated within industries, are found many attractive positions of a semi-expert character which are too simple for college graduates and too technical for untrained workers. For such positions, the junior college is admirably situated to give training by providing courses. Executive training for men in service which offers, perhaps at night, courses in leadership, education, psychology, and administration, is a field peculiarly appropriate for terminal training.

Rochester Mechanics Institute is an example of an institution which has deliberately set as its objective the training of executives in industry. The plan is briefly this. They train their students to take certain intermediate positions in an industry and give them the fundamentals of executive training against the time when maturity and skill will entitle them to become foremen and minor executives.

Industry needs many of these men who, without training, would never have become executives and who would be satisfied with minor executive positions. In a well-run army there is need for corporals, sergeants, and lieutenants. Not many generals can be used. So in industry there is need for men trained for minor executive positions which for them will be terminal. This attitude towards the graduates of junior colleges may lack in sentiment; but it is right.

In brief, the municipal junior college is the best example that we have of the terminal function of the junior college in accordance with which students are trained to fill those positions in life where training

beyond the high school, but below the professional level, will benefit the individual and the community.

We turn now from the functions illustrated in types of schools to other functions which have no distinctive habitat.

The junior college is the terminal for cultural education in school. We agree, of course, that cultural education should continue throughout life but if students go no further than the junior college, their cultural education in school obviously terminates. If, however, they enter a professional school, it is possible that they may continue to carry non-professional courses but the probability is slight. It is well for the junior college to recognize that in the professional school there is ordinarily no time for extra-professional courses and, therefore, students have opportunity to carry cultural courses only in the years before graduating from the junior college.

In a very real sense, therefore, the secondary school which includes the junior college is the guardian of culture. It is the people's college where the student acquires the culture of his civilization. Somewhere in this period he must learn how to vote intelligently, to appreciate the beautiful, to acquire good health habits, to understand people, and perform his duties as a man among men. This is the peculiar responsibility of the junior college which is the inspector of the product and sees that the quality is right. The preparatory function of the junior college will be cared for since both students and professional schools make urgent demands for preparatory courses. The cultural function, however, has no organized advocates. The administration and the faculty of junior colleges must be the guardians.

The junior college is favorably situated to perform another function. It can become a curriculum-research laboratory. Let me illustrate this function by contrast. In the university, the curricula of freshman and sophomore years are dominated by the faculty of the departments, as they should be. But unfortunately in universities the faculty of departments are primarily interested in advanced undergraduate and graduate courses. Their deep interest lies in the students who major in the department. Consequently, the faculty tend to view their freshmen-introductory courses in a department as one of a series, an introductory unit which is taught from the departmental point of view. Therefore, to change a course so as to make it function in the life of a layman is exceedingly difficult.

The junior college is more fortunately situated. Its faculty are acquainted only with freshmen and sophomores. They do not have their eyes fixed upon advanced courses. It is, therefore, likely to be more sensitive to the needs of student laymen. Particularly in the terminal courses, practical life is just beyond and, therefore, has a more powerful influence.

Granted, then, that a faculty is selected with a functional point of view and a scientific attitude toward the problems of education, the possibility for changing the constituent content of courses is ideal. There is no pressure from above to overcome and the only limitations upon improvement are those that come from the lack of interest in the faculty itself.

In brief, I am hoping, and seeing my hopes realized here and there, that the junior college will become the centre of research in curriculum construction.

Similarly, in the field of teaching the junior college can perform a distinct function. It can provide examples of superior junior-college teaching. In the great universities the freshmen and sophomores for the most part are taught by graduate students whose primary interest is in research and a graduate degree. Teaching is ordinarily of secondary importance to them. Their mind set is not favorable. In the junior college is found a different situation. The teachers are not primarily interested in research. Their future lies in teaching. Usually, too, they are more mature and more experienced teachers.

This is in general a correct contrast. If, then, these junior colleges have a scientific attitude toward education they can do much toward the improvement of teaching. They have arrived professionally so far as promotion is concerned. They are experienced teachers. The conditions are ripe in such a situation for significant work in the field of research and instruction. Faculty of junior colleges are being watched with interest and with hope.

We have thus six significant functions which the junior college performs. It prepares for the professions, it brings college education within the reach of a wide range of people, it provides terminal training for vocations, it is the guardian of culture, and it should be the intimate home of educational research in the fields of curriculum and class instruction.

Associate Professor T. C. Holy, Professor of Education and Research Associate of the Bureau of Educational Research of Ohio State University, presented his paper on *Criteria for the Establishment of a Junior College*.

CRITERIA FOR THE ESTABLISHMENT OF PUBLIC JUNIOR COLLEGES

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Although the junior college movement is not at all new, it has had its chief impetus in the last decade. In 1892 the importance of a differentiation of junior and senior college levels was recognized by President W. R. Harper in the organization of the new University of Chicago. Quoting from his book, "The Trends in Higher Education," published in 1905, is found the following: "The work of the freshman and sophomore years is only the continuation of the academy or high school. It is a continuation not only in subject matter, but in methods employed. It is not until the end of the sophomore year that the University methods of instruction may be employed to advantage." At a meeting of the North Central Association of Colleges in Secondary Schools, as early as 1906 this same idea was expressed by President Jesse of the University of Missouri, who said that: "The first two years in college are really secondary in character," while at this same meeting President Draper of the University of Illinois said that: "We can not tell just where the high-school course is to end and the college course commence."

Inasmuch as the last speaker on this program, Mr. Whitney, will no doubt give certain facts on the growth of this new unit, I shall not dwell on this phase of the problem except to say that thirteen (13) new junior colleges as parts of public school systems have been organized this year.

With the rapid growth of this new educational unit has been raised the questions of its function, scopes, and objectives, the first of which has already been discussed by Dr. Charters, the first speaker. To this end a number of studies have been made, the most comprehensive of which has been the "Junior College" in two volumes, published in 1924, and "The Junior College Movement," 1925, by L. V. Koos, with both of which you are already more or less familiar, and a

more recent study, to which reference has already been made, by Dr. F. L. Whitney, who later appears on this program on the "Junior College in America" of this last year. The report of the Commission on the Articulation of the Units of American Education of the Department of Superintendents, which will appear in the 1929 Yearbook, deals with the place of the junior college among the administrative units of American education.

The term "junior college" is now generally accepted as applying to those institutions, either public or private, which offer the first two years of the standard college course above high-school graduation. On the basis of this definition, it exists under four different types, namely:

- (1) The junior or lower division of the university.
- (2) The normal school accredited for two years of college work.
- (3) The small college which has limited its course to two years beyond the standard high school.
- (4) The public high school extended to include two years of college work.

This paper shall deal only with the criteria for the establishment of the latter type, namely, the public junior college as a part of the public school system.

Recognizing the need of continued study of this relatively new educational unit, the Bureau of Educational Research, of Ohio State University, set up as one of its research projects of the current year a project on "Criteria for Establishing Public Junior Colleges." This project has been carried on by Mr. Rhue E. Green, a member of the Bureau staff, and myself, the findings of which are here reported, under two headings: "The Existing Need" and "The Financial Aspects." In the original study the criteria as determined have been applied in a case study using the city of Chillicothe, Ohio, as an example of their application. Due, however, to limit of time, this paper will not touch on this case study.

In analyzing the existing need for public junior colleges, certain factors must be taken into account. Among these are:

1. Relationship of high-school enrollment to population.
2. Relationship of number of high-school graduates enrolled in the first two years of higher institutions to the enrollment in the high schools.

3. Relationship of city population and graduates enrolled in first two years.
4. The effect of the local junior college on college enrollment.
5. Effect of distance to the nearest four year college on enrollment in the local junior college.
6. Minimum number of students.
7. Sources of student body.
8. Radius of area served by junior college.

In securing material for this study a sampling of two hundred eighty (280) high schools, organized on the 8-4 plan, from the approximately two thousand (2,000) accredited to the North Central Association of Colleges and Secondary Schools were used. Since every seventh school was included in the sampling, representatives of the various sized high schools in the association were secured. Questionnaires were sent to these schools and more or less complete returns were received from two hundred sixty-six (266) of the two hundred eighty (280) schools selected. In order to get some check on the reliability of the sampling, the first one hundred thirty (130) replies were tabulated on the basis of the factors already given. Later the additional one hundred thirty-six (136) replies were added to this number with practically no change in results. The conclusion therefore is that this number of schools furnishes a satisfactory sampling of the entire group. In securing the information on junior colleges, fifty (50) of these institutions, widely distributed as to territory and enrollment, were requested to supply the information needed. Replies were received from forty-four (44) of these institutions.

In studying the relation between total enrollment of high schools and estimated population of the cities, the high schools were divided into two groups, those having a college within the city, and those not having one. These will be designated hereafter as the college and non-college groups. Of the two hundred seven (207) schools from which complete information was collected on this item, fifty-two (52) were in the college group and one hundred fifty-five (155) in the non-college group. The average number for one thousand (1,000) estimated population enrolled in the high schools was thirty-nine (39) for cities having colleges, and fifty-one (51) for cities without colleges. This is somewhat contrary to expectations, but is no doubt due to the fact that the cities having colleges are in the main the larger cities, which usually show a lower per capita enrollment in

high schools. Combining these two figures, approximately five (5) per cent of the population of the two hundred seven (207) cities reporting is enrolled in the public high schools exclusive of pupils coming in from other districts.

The next factor studied was the relationship of the number of high-school graduates enrolled in the first two years of higher institutions to the enrollments in the high schools. Again the schools were divided into the college and non-college groups. For the sixty-four (64) cities having colleges, the average percentage of the high-school enrollment in the first two years of higher institutions is 16.9. For the one hundred ninety-five (195) in the non-college group, the percentage is 10.9%, or a difference of 6% in favor of the schools having institutions of higher learning. Of these sixty-four (64) cities in the college group, fifty-eight (58) have standard four year colleges, one a state university, and five junior colleges. Although time will not allow showing the relationship in schools of different sizes, suffice it to say that in both of these groups there is a consistent decrease in the average percentages of those enrolled in higher institutions as we go from the smaller to the larger schools.

The next relationship is that of the city population and the number of graduates enrolled in the first two years of higher institutions. The same method was followed in this, in that they were divided into college and non-college groups, and the cities classified into seven population groups, extending from less than two thousand (2,000) to fifteen thousand (15,000) and above. In the case of the seventy-one (71) college schools, the average for the entire population range is 6.1%, while of the one hundred ninety-five (195) of the non-college group, 4.9%, or a difference of 1.2% in favor of the college group. The largest proportion of college students enrolled in the first two years per one thousand (1,000) population, amounting to 11.2% as compared with 4.9% for the entire group. This proportion gradually decreases as the size of the city increases for both the college and the non-college group.

In order to ascertain the effect which a local public junior college has on the number of high-school graduates enrolled in the first two years of higher institutions some further investigation was made along this line. Three groups of high schools were studied, namely, those located in cities having four year colleges, those in cities having public junior colleges, and those in cities having no colleges. Of the sixty-

two (62) high schools located in cities having four year colleges, 45.1% of the 1926-27 and 1927-28 high school graduates are enrolled in the first two years of college work either in the local college or elsewhere. Of the fifty-two (52) high schools located in cities having junior colleges, the percentage is 42.3%, indicating a slightly greater drawing power for the four year college. This difference is probably partly due to differences in size of cities. In the third group, namely, cities without colleges, the percentage of the 1926-27 and 1927-28 graduates enrolled in just two years of college is 31 for the one hundred ninety-seven (197) high schools falling within this group. These figures only tend to confirm what seems obvious, namely, that the location of a college within a city increases the number attending college.

Fifty-two (52) high schools having local junior colleges were studied to determine the effect which distance to the nearest four year college has on enrollment in the local junior college. The data from these schools have been distributed in two ways: (1) according to percentages of students enrolled in the first two years of college who are attending the local college, and (2) according to the number of miles to the nearest four year college or university. These two sets of facts were then correlated, that is, the percentages of students enrolled in the first two years of college who were attending a local junior college and the number of miles to the nearest four year college or university. It was expected that this would show a high positive correlation, but as a matter of fact it showed a negative correlation of .103. While the number of cases are too few to draw any general conclusions, the indication is that the location of a four year college does not materially influence the number of students who attend the local junior college.

One of the most important criteria to be determined is the minimum number of junior college students necessary to justify the organization and maintenance of such an institution. Objectively to arrive at this is of course out of the question since communities vary widely. Quoting from the North Central Quarterly of June, 1927¹, is found the following: "No junior college shall be accredited unless it has at least sixty (60) students regularly registered in accordance with these standards. Of those enrolled at least one-third shall be in the second year." This number is considerably less than the judg-

¹North Central Quarterly, 2-22-23, June, 1927.

ment of authorities in the junior college field. Koos¹, in his study of the junior college, states that the cost is likely to run unreasonably high for units enrolling less than 150-200, while O'Brien² is of the opinion that enrollment should be well in excess of 100. The California law provides that if the average daily attendance falls below seventy-five (75) any year after the second, the superintendent of schools having jurisdiction shall suspend the junior college. Since standards and judgment vary so widely, it seems that some indications at least, of the necessary enrollments might be had from an analysis of a group of public junior colleges that have been in existence for a number of years. Forty (40) of such have been selected, twenty-four (24) of which have been in operation five or more years. Enrollments in these forty (40) institutions range from twenty-two (22) to one thousand twenty-six (1,026), with an average enrollment in the Freshman year of 99.3 and the second year of 50.9 or a total of 150. Of these forty (40) junior colleges widely distributed, two communities, Waukon and Estherville, Iowa, after five years' experience are continuing their junior college with total enrollments of thirty-nine (39) and fifty-four (54), respectively. McDowell³ has shown that of twelve (12) public junior colleges with median total enrollments of fifty-seven (57), that four (4) of the six (6) with enrollments below the median have been discontinued. In the light of experience plus the judgment of authorities it seems that a junior college in order to operate within reasonable cost limits and to allow satisfactory curricular offerings, should have a minimum enrollment of one hundred fifty (150) students, one-third ($\frac{1}{3}$) of whom should be in the sophomore class. This number is therefore set up as the standard for the calculations which follow.

Before setting up standards with respect to the size of high-school enrollment and city population, which would justify the establishment of junior college unit on the basis of a minimum enrollment of one hundred fifty (150) students, it is necessary to make some analysis of the sources of the student body. In the forty (40) public junior colleges studied it was found that the average percentage of local students, that is, from the district supporting the institution, is 69.8%, leaving approximately thirty (30) per cent to

¹Koos, L. V. *The Junior College Movement*, Ginn & Co.—1925, pg. 380.

²O'Brien, F. P. *Conditions Which Justify a Junior College*, *School Review*, 36:128-138, February, 1928.

³Bureau of Education Bulletin No. 35, 199, pages, 132-154.

be drawn from without the school district. On the basis of one hundred fifty (150) junior college students, one hundred (100) freshmen and fifty (50) sophomores, approximately seventy (70) per cent of whom came from the local district, the student requirement of the local district would therefore be seventy (70) per year, or a total of one hundred five (105) students enrolled from the local district. A study of the graduates of sixty (60) high schools located in cities having public junior colleges shows a total enrollment of 6,909 in the first two years of college and of these 4,464 or 65% are enrolled in the local junior college. It has already been pointed out that 16.9% of the enrollments of high schools in cities having colleges are registered in the first two years of college. Applying the 65% to the figures would give 12%, the proportion of the total enrollment that might be expected to enroll in a local junior college. The total high-school enrollment is the number of which one hundred five (105) is 12% or eight hundred seventy-five (875), which for convenience is taken as nine hundred (900). By applying a similar technique, using the 6.1 persons per one thousand (1,000) estimated population enrolled in the first two years of colleges, found to obtain in cities with colleges, the total population would be seventeen thousand (17,000).

Commonly accepted practice has set the region to be served by junior college as an area of from 20 to 30 miles in radius. This area will of course vary with road conditions, bus, electric, and steam railway transportation facilities. Eighteen (18) public junior colleges with enrollment ranging from twenty-two (22) to four hundred fifty-five (455) and with an average one hundred sixty (160) were analyzed on this basis. It was found that 96.4% of these students live within a 20 mile radius of the school, leaving only slightly more than 3% living outside this area. The conclusion which one might draw from these data is that there would be practically no duplication of college areas in the cases of junior colleges located from forty (40) to fifty (50) miles apart. These distances are affected to some extent by the greater drawing power which state universities and other four year colleges have as compared with that of the junior college.

The second phase has to do with certain financial factors as related to the organization and operation of public junior colleges.

A study of the legal status of the junior college in the various states indicates that this unit outside California receives little or no state subsidy, and must therefore depend almost entirely on local taxation and tuition charges. Due to the fact that most of the public junior colleges particularly in smaller cities are housed in the high-school buildings, using some of the same high-school teaching staff, equipment, and apparatus, and having common administrative offices, maintenance, and operation costs with the high school, it is well nigh impossible to secure accurate figures on their cost. Inquiry was made in this investigation on the cost per student to support the institution. Replies were received from thirty (30) colleges with enrollment ranging from fifteen (15) to one thousand seven hundred forty-nine (1,749). According to these returns the average cost per student was one hundred eighty-five (\$185.00) dollars with a range of from ninety (\$90.00) dollars to four hundred twenty (\$420.00) dollars. Since the California law has without doubt the most effective method system of records and reports, it can be assumed that cost data from schools within that state would be the most accurate. The average per student cost of the four California junior colleges included in the thirty (30) reporting was three hundred nineteen (\$319.00) dollars for 1927-28. These schools have enrollments of two hundred fifty-two (252), three hundred fifty-one (351), four hundred thirty (430) and one thousand seven hundred forty-nine (1,749) respectively, so their cost is no doubt less per student than in the smaller units. Due to the difficulty of getting accurate information on costs it seems safer to approach it from another angle, namely, that of the costs of other well established units on which fairly accurate information are available. According to the U. S. Bureau of Education¹ the per pupil cost of various public schools unit for 1923-24 is as follows: junior high school \$125.00, senior high schools \$174.00, universities and colleges \$594.00, teachers' colleges \$141.00, and state normal schools \$179.00. The actual cost of the junior college probably falls somewhere between high-school and university and college costs. It has been found that the cost of the first two years of college is approximately three-fourths ($\frac{3}{4}$) of the average yearly cost for the entire four years.¹ On the basis of these figures together with data assembled by other investigators, Reeves² in particular in the 1926 Pro-

¹U. S. Bureau of Education Bulletin (1926) No. 23, page 596.

²Reeves, F. W. *Proceedings of the American Association of Junior Colleges*. November—1926, page 58.

ceedings of the American Association of Junior Colleges, that the per student cost in public junior colleges of enrollment of one hundred fifty (150) is around four hundred (\$400.00) dollars, which figure is used in this paper. On the basis then of a four hundred (\$400.00) dollars per student cost, the total cost of a junior college of one hundred fifty (150) enrollment would be sixty thousand (\$60,000.00) dollars. The approximate amount of taxable wealth which a community should have for the organization of a junior college will depend upon two factors, the method of support and the millage levy that might be asked for the purpose. The source of income in thirty junior colleges is: tuition forty-nine (49%) per cent, tax levies forty-six (46%) per cent, state aid three (3%) per cent, and other sources two (2%) per cent. If one is guided by common practice, roughly, one-half ($\frac{1}{2}$) of the total cost—\$30,000.00, would come from the district. The Kansas law provides that a levy not exceeding two mills in first and second class cities may be made. When one considers that there is a net saving of about \$200.00 per year in living costs per student, or \$30,000.00 saved to the community on the basis of an enrollment of one hundred fifty (150), it seems that a two mill levy is not exorbitant. On the basis then of a two mill levy, \$15,000,000.00 of taxable property would be necessary to annually raise the \$30,000.00 needed. This amount is considerably in excess of that required in the only two states having such legislative provisions—Arizona and California—which require five and ten millions of dollars respectively.

Another factor to be taken into account is the ability and effort of the district to support public schools. The best measures of the ability of a district is the taxable wealth per child enrolled while that of effort is the number of mills per dollar levied for school purposes. Unless the ability and effort of a community considering the establishment of junior colleges is above or at least approximates the ability and effort of a comparable group of districts, it would not seem wise to consider the organization of this educational unit.

The difficulties of setting up criteria which may be rigidly applied to conclusively answer the question whether or not a school district should organize a junior college are, of course, evident. It is believed however that those facts and criteria summarized below will serve as a basis for determining the feasibility of organizing this educational unit. These are as follows:

1. An average of 4.9 high-school graduates per one thousand (1,000) population in cities without colleges are enrolled in the first two years of higher institutions, while in cities with colleges the average is 6.1.

2. 16.9% of the high-school enrollment in cities having colleges are enrolled in the first two years of higher institutions, while in the non-college group the percentage is 10.9.

3. The minimum enrollment of one hundred fifty (150) students is set up for the establishment of a public junior college, at least one-third of whom should be in the sophomore class.

4. A high-school enrollment of at least nine hundred (900) is necessary to provide for a one hundred fifty (150) public junior college enrollment.

5. A city population of at least seventeen (17,000) thousand is desirable for a city considering a public junior college.

6. An average of 30% of junior college students come from without the local district.

7. Approximately 96% of public junior college students come from within a radius of twenty miles.

8. The per student cost for a junior college unit is approximately \$400.00.

9. The student effects an annual saving of about \$200.00 by attending college at home.

10. On the basis of common practice roughly 50% of the cost of junior colleges is borne by the district. On that basis then the local district would provide \$30,000.00 annually for the support of a junior college enrolling one hundred fifty (150) students with a student cost of \$400.00 per year.

11. On the basis of the two mill levy a taxable property valuation of \$15,000,000.00 would be necessary to raise the \$30,000.00 to be borne by the local district.

12. If the entire amount is to be borne by the local district on the basis of a two mill levy, then a taxable valuation of \$30,000,000.00 would be required.

13. The ability and effort to support schools should at least approximate and preferably higher than that found to exist in comparable districts.

The Relation of Independent Junior Colleges to the University and the Evolution of Weak Four Year Colleges into Strong Junior Colleges was read by Floyd W. Reeves, Professor of Education, University of Kentucky.

RELATION OF THE INDEPENDENT JUNIOR COLLEGE
TO THE UNIVERSITY AND THE EVOLUTION
OF THE WEAK FOUR-YEAR COLLEGE
INTO A STRONG JUNIOR COLLEGE¹

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The subject which has been assigned to me on this program is in reality two topics. One deals with the relation of the junior college to the university and the other deals with the transformation of four-year colleges into junior colleges. While the information which I have obtained seems to indicate that there is some connection between these topics, yet the connection is not particularly close. Therefore, I shall discuss the topics independently.

I have relied upon two sources for my information. First, personal visits were made to thirty-three junior colleges. Second, a questionnaire was prepared by the speaker and submitted by Mr. Doak S. Campbell, Secretary of the American Association of Junior Colleges, to 408 institutions holding membership with that organization. Returns were received from 203 institutions, eighty-seven of them publicly controlled and one hundred sixteen privately controlled.

The first part of the questionnaire dealt with the relation of the independent junior college to the state university in the state in which the junior college is located. This section of the questionnaire

¹Address delivered before the Department of Secondary School Principals of the National Education Association at the Hotel Winton in Cleveland, on February 26, 1929.

contained a list of eighteen items concerning which policies of junior colleges are sometimes influenced by the rules, regulations, and practices of state universities. The presidents of the junior colleges were asked to check those items on which the state university of the state in which the college is located exerted an influence, and to state whether the influence exerted was desirable or undesirable.

In addition to checking items on the list of eighteen presented, the junior-college presidents were requested to state any other items upon which the state university exerted an influence upon the policies of the junior college. Apparently, the list of eighteen items presented on the questionnaire included all of the major items upon which such an influence was exerted; the number of institutions which added one or more items to this list was so small that it did not appear worth while to tabulate this information.

The presidents were asked also to explain why the influence of the university seemed desirable or undesirable in the case of the items checked. Some of the explanations given are illuminating and will be included in this report.

In the compilation of the data relative to the influence of the state university upon the policies of the junior college, the returns received from publicly controlled institutions were tabulated separately from those received from privately controlled institutions. The only significant difference which appeared as a result of this grouping related to the matter of endowment. Publicly controlled institutions, being tax supported, are not required to have any endowment. Consequently, although state universities exert an influence upon private junior colleges with reference to endowment requirements, such influences do not exist for junior colleges publicly controlled. Since no other significant differences appeared, the public and private institutions are considered as one group in this report.

Table 1 shows the list of eighteen items concerning which junior college policies are affected by state universities, together with the frequency with which the junior colleges reported the recognition of an influence on each item, and the per cent of those recognizing such an influence who considered the influence desirable or undesirable.

Table 1. Items Concerning Which the Policies of Junior Colleges Are Affected in Either a Desirable or Undesirable Manner by State Universities, and Frequency with Which Institutions Are Affected (Based on 203 junior colleges)

Items Concerning Which Junior College Policies are Affected by State Universities	Junior Colleges Reporting Such an Influence		Junior Colleges Reporting Such Influence as Desirable		Junior Colleges Reporting Such Influence as Undesirable	
	No.	Per Cent of Total Returns	No.	Per Cent of Those Reporting	No.	Per Cent of Those Reporting
1. Curriculum	153	75	137	90	16	10
2. Content of Specific Courses.	123	61	102	83	21	17
3. Graduation Requirements ...	107	53	101	94	6	6
4. Entrance Requirements.....	139	69	131	94	8	6
5. Number of Departments	56	28	54	96	2	4
6. Separation of College and High School Departments.	69	34	59	86	10	14
7. Number of Students Enrolled	29	14	23	79	6	21
8. Record Keeping and Reports	74	36	72	97	2	3
9. Adequacy of Library.....	130	64	125	96	5	4
10. Adequacy of Laboratories...	128	63	122	95	6	5
11. Faculty Qualifications	129	64	127	98	2	2
12. Number of Faculty Members	59	29	54	92	5	8
13. Teaching Load.....	118	58	106	90	12	10
14. Faculty Salaries	32	16	26	81	6	19
15. Minimum Expenditures	31	15	25	81	6	19
16. Minimum Income	22	11	17	77	5	23
17. Minimum Endowment.....	21	10	15	71	6	29
18. Athletics	21	10	16	76	5	24

Table 1 indicates that one of the phases of junior-college work most frequently affected by the state universities is the curriculum. The first four items listed in Table 1, all of which relate to curriculum matters, were checked by more than half the institutions replying to the questionnaire. It will be noted from Table 1 that the university influence was considered undesirable by more junior colleges in the cases of curriculum and content of specific courses than in the case of any other item on the list.

The junior-college presidents who believe that the influence of the state university upon the curriculum of the junior college is *desirable* gave a variety of arguments in support of their contentions. The president of a junior college in Arkansas presented the following reasons for his conclusions: (1) The influence of the university encourages the junior college to make every possible improvement in its curricula; (2) This influence results in the junior college conforming to the wishes of the university in the matter of curricula and course content with the result that students do not lose credits when they transfer to the university; (3) The influence results in

closer correlation between the work of the junior college and that of the university; (4) As a result of the influence of the university, credits are standardized and can be transferred without discount to other institutions since the university passes judgment upon the value of the credits of the junior college to which it gives accreditation. The president of a junior college in California makes the following statement: "The influence of the University of California upon curricula and content of courses in junior colleges is excellent. Because of this influence junior colleges are inspired to maintain high standards." The president of a junior college in Illinois writes: "The criticism made by the University of Illinois on content and kind of courses offered by junior colleges has the value that comes from advice and suggestion from an agency outside of the school. Before a new course is given, outlines of the content of this course are always submitted to the University."

Although a large majority of junior-college presidents who replied to the questionnaire stated that they considered the influence of the state university upon the curricula of their institutions desirable, yet a number of those who considered this influence undesirable discussed at length the reasons for their judgments. The president of an institution in Illinois reported that the requirements are often arbitrary and inflexible and, consequently, prevent the adaptation of courses and graduation requirements to the peculiar needs of a particular student body. This president also said that the arbitrary requirement of the state university often prevent experimentation upon the part of the junior college in an attempt to solve problems relating to the curriculum. Another junior college president in Illinois reports that the only undesirable influence of the state university upon that institution is a tendency upon the part of the university to limit the curriculum of the junior college to those subjects which will receive credit from the university. The president of a junior college in Missouri reports that the attitude of the University of Missouri tends to discourage research in matters pertaining to the curriculum. The further comment is made that the content of the courses in physiology and chemistry which the university will approve is ill adapted to meet the needs of the students of a junior college for young women. A second junior college in Missouri reports that the requirements of the state university make it difficult for junior colleges to meet the needs of students who do not continue their work beyond the junior

college. Mention is also made of the serious limitations in the matter of credit placed upon the Bible department. At this institution credit toward the B. A. Degree is refused for rural sociology, and it is also difficult to obtain credit in special courses in agriculture. The president of a junior college in Georgia states that the influence of the university is undesirable in so far as the university insists upon certain specific courses and content. He contends that a junior college should be allowed to adjust its curriculum to its own conditions. In the judgment of this president only the sixty semester-hours required for graduation should be required for entrance to senior college. He states that in his opinion if junior-college graduates can carry the work of the junior and senior years in senior colleges in a satisfactory manner nothing more should be required of them. A junior college in Texas reports that the influence of the university upon the curriculum is undesirable because it prevents offering some courses which students really need but which cannot be transferred to the university. A junior college in Arkansas states that the influence of the university is undesirable because the university fails to understand the big work that the junior college can do in giving enriched curricula to young people. A junior college president from California writes, "The domination by the university of curriculum-making and of content in specific courses has a tendency to hamper the real problem of the junior college and also to make it a vest pocket edition of the under-division courses of the university."

Items 3 and 4 in Table 1, relating to entrance and graduation requirements, were checked frequently as being influenced by the state university. Only a small per cent considered the influence on these matters undesirable. Several of the institutions reporting the influence of the state university upon entrance requirements and graduation requirements as undesirable explained why they considered this influence undesirable. The president of an institution in Illinois makes the following comment. "The influence of the university upon a junior college just beginning its work is probably desirable in the matter of admission and graduation requirements because the university requires the maintenance of high standards. After the junior college expands, however, this influence may tend to become more or less undesirable." The president of another junior college in Illinois states that the influence of the university is undesirable because the requirements set up concerning entrance and graduation

are arbitrary and inflexible and do not permit the institution to conform to the peculiar needs of a particular student body. A number of presidents expressed the view that the junior college should be free to shape its own general policies with reference to such matters as entrance requirements.

An influence of the state university with reference to the separation of high school and college departments (item 6 on Table 1) is reported by sixty-nine institutions, fifty-nine of which report this influence as desirable. None of the institutions reporting this influence as desirable give any reasons for their opinions. However, presidents of several of the ten which consider this influence undesirable offer arguments in support of their contentions. One says, "It is difficult at times to enroll enough students to make a separation of high-school and college departments financially desirable." Another writes, "Most university men fail to realize that the freshman and sophomore college years are a logical part of the secondary school system, and consequently there is no valid reason for a complete separation of high-school and college students in classes." A third president writes, "I believe that the present hard and fast rule requiring a separation of high school and college classes is undesirable, particularly in subjects such as foreign languages." A fourth president writes, "In regard to the separation of the high-school and the college departments it would be more desirable in a small institution for an instructor in any one department to be permitted to teach his subjects in both high-school and college divisions." A fifth president says, "A close articulation between the high school and the junior college is prevented by the rule of the university that the high-school and college divisions of the junior college must be kept entirely separate in classes and in faculty."

The state university very frequently exerts an influence upon institutions with reference to equipment (items 9 and 10 in Table 1). Table 1 shows that in the case of libraries all but five of the junior colleges reporting believe that the influence exerted is desirable, and in the case of laboratories all but six of the junior colleges reporting believe that the influence exerted is desirable. Several of the institutions report that the standards set by the state university have made it possible for the junior colleges to bring pressure to bear upon the boards of control to provide adequate library and laboratory facilities, when such facilities could not have been obtained without outside

assistance. Furthermore, the influence of the state university inspires the junior colleges themselves to maintain high standards with reference to library and laboratory equipment.

One hundred twenty-nine junior colleges state that their policies concerning teacher qualifications (item 11 on Table 1) are influenced by the state university. The institutions are practically unanimous in considering this influence desirable, only two of the 129 stating that it is undesirable.

In matters pertaining to teaching load and size of the teaching staff (items 12 and 13, Table 1), many state universities exert marked influence upon the policies of the junior colleges. The influence on teaching load was mentioned as undesirable more frequently than the influence upon any other item except curriculum and content of specific courses.

Three of the junior colleges which reported the influence of state universities upon teaching load and size of teaching staff as *desirable*, offered explanations for the opinions presented. A junior college in Kansas reports that "the influence of the university is wholesome because it assists in keeping junior college work up to standard; however, the university is not dictatorial in dealing with the problem of teaching load." A junior college in Michigan states that there has been a tendency in the community in which this institution is located to expect the college teachers to carry teaching-hour loads equivalent to those of high-school teachers. In this situation the support of the university has been helpful. The president of a junior college in Illinois reports that the regulations of the university have been particularly helpful in preventing the over-loading of teachers.

A number of the institutions which reported the influence of the university upon junior colleges in matters of teaching load and size of teaching staff as *undesirable*, gave reasons for the support of their conclusions. Most of the statements made related to the mechanical method of measuring teaching load. The president of a privately controlled institution in Kentucky expressed the sentiment of the presidents of these institutions in the following statement. "Most privately controlled institutions are small; consequently the classes are not large. Hence in most departments the teachers can carry teaching loads larger in terms of number of hours taught each week than would be possible in a larger institution."

The influence of the state universities upon financial matters connected with junior-college administration (items 14, 15, 16, 17 in Table 1) does not appear to be great except in four or five of the states where the universities have established financial criteria for the accrediting of such institutions. In the case of each of the four items relating to finance, it will be noted that only five or six of the institutions reporting on these items state that the influence of the university is undesirable, while all of the others state that this influence is desirable.

Some of the statements made by junior-college presidents concerning the influences which state universities exert upon their institutions are so general in their nature that they cannot be classed under any of the topics which have been mentioned; yet, they are significant and worthy of mention.

In commenting favorably upon the influence of the university a president of a junior college in California writes, "I consider the check which the university makes of our students as very valuable to us. If we grow negligent in any particular the university discovers it and we are asked to correct the deficiency." From a junior college in Missouri comes the following statement: "Public junior colleges are likely to be entrusted to men unfamiliar with college administration. The university renders a valuable service as a check upon the junior college." The president of a Michigan institution says, "Because the state university has experience back of it, its influence is desirable. It keeps the junior college from responding to unworthy wishes of its community." A junior-college president in Kansas reports, "The university influence has been a wonderful aid in establishing the confidence of the community and of non-residents in the junior college."

Unfavorable comments of a general nature were received from two junior colleges in Missouri and from one in Texas. The president of one of the Missouri institutions writes, "The university should be a standardizing agency without being a killing agency. It should standardize primary requirements leaving the particular school to work out its own details. Our university has not always adopted this policy." The president of another junior college in Missouri writes, "If I should criticize at all it seems to me that the standards set up by the university are too largely external; they should have

to do more directly with the scholarship of the school and the type of work which it is doing." The report from Texas says, "A university faculty cannot, it seems, fully comprehend the work of a small school. Number of students does not always determine the quality of the school."

The speaker was interested in finding out the manner in which state universities exerted influence upon junior colleges, so information relating to this point was called for in the questionnaire. The replies show four important means whereby the universities influence the junior colleges. One hundred thirty-four institutions report that this influence is exerted by means of acceptance or non-acceptance of credits on transfers. One hundred seventeen state that this influence is exerted by the university serving as an accrediting agency for the junior colleges of the state. Forty-five report that the university influences junior colleges by means of exerting an indirect influence upon other accrediting agencies. Thirty-four state that the university exerts an influence by means of penalizing students whose programs do not articulate with the programs offered by the universities.

Before presenting the second division of the topic assigned to me, may I summarize briefly the information presented pertaining to the relation of the independent junior college to the university? That this relationship is close is indicated by the replies received from institutions, both public and private, in all of the states in which junior colleges exist. A majority of the presidents of the junior colleges report that the influence of the university upon their institutions is desirable at most points. Where this influence is reported as undesirable, presidents have been free to state why they consider it so. There is almost unanimous agreement that the universities have been helpful in raising the standards of the junior colleges, particularly during the early years of their development. However, it appears that, when junior colleges become well established, they tend to find irksome many of the standards set up by the universities; consequently, complaint is made of the mechanical nature of these standards. The standards concerning which complaints are heard most frequently are those relating to curriculum and content of courses, the separation of high-school and college departments, and teaching loads. The speaker obtained information from the junior colleges which he visited concerning the effect of these standards upon

the work of the junior colleges. In the light of the data obtained, it is difficult to arrive at any other conclusion than that the standards mentioned in many instances work a definite hardship upon the junior colleges and actually result in poorer educational programs.

I shall now deal very briefly with the second phase of the subject under discussion. As a means of obtaining information concerning the "Evolution of the Weak Four-Year College into a Strong Junior College," questions were asked concerning the type of institution from which the junior college originated, the year during which the institution became a junior college, and the agencies which accredited the institution both before and after it became a junior college.

Presidents of eighty-five publicly controlled junior colleges and ninety-six privately controlled junior colleges report the dates at which the institutions became junior colleges. The information showed that half of the private institutions were organized as junior colleges since 1921; half of the public institutions were organized as junior colleges since 1924; and half of the institutions, both public and private combined, were organized as junior colleges since 1922. A large majority of the earlier junior colleges were organized under private control. Since 1922 the movement has been in the direction of more rapid development of junior colleges under public control.

Information concerning the type of institution from which the junior college originated was obtained from eighty-two publicly controlled and 110 privately controlled junior colleges. These data are shown in Table 2.

Table 2. Type of Institution from Which the Junior College Originated.

Type of Parent Institution	Number of Junior Colleges Developing from Each Type of Parent Institution		
	Public Junior Colleges	Private Junior Colleges	Both Types Combined
Public High School	46	4	50
Private Secondary School.....	1	64	65
Originally Established as a Junior College.....	33	14	47
Four-year Public Institution of College Grade.....	2	0	2
Four-year Private Institution of College Grade.....	0	28	28
Total.....	82	110	192

Some interesting information was obtained concerning the effect upon the accredited standard of the twenty-eight private and two public junior colleges which have evolved from four-year colleges. None of these institutions was accredited by a regional accrediting association prior to becoming a junior college, although eleven of them now hold membership with such associations. As four-year institutions, only fourteen of the thirty were accredited by state universities. As junior colleges, twenty-three are accredited by state universities. As four-year colleges, only six of the thirty institutions were accredited by state college associations. Now seventeen are accredited by such associations. The number of these institutions which are accredited by state departments of education has been increased from twelve when they were four-year colleges to twenty-four since they have become junior colleges.

Two conclusions may be drawn from this part of the study: (1) Evolution from a four-year institution of college grade into a junior college is one of the least frequently found origins of junior colleges, fewer than sixteen per cent of the group studied having originated in this way; (2) Evolution from a four-year institution to a junior college has improved the accredited standard of a considerable percentage of the institutions originating in this manner.

Frederick L. Whitney, Director of the Department of Educational Research, State Teachers College, Greeley, Colorado, read his paper, *The Present Status of the Junior College Movement*.

THE PRESENT STATUS OF THE JUNIOR COLLEGE MOVEMENT

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The essential secondary nature of the first one-half of the college curriculum has been established by recent research, and rather early attitude and practice recognized the same fact in a concrete manner. We read that as early as 1852 the transfer of all secondary work to the state high schools was advocated at the University of Michigan and somewhat later by President Folwell of the University of Minnesota,

while it is within the memory of most of us that President Harper in the early 90's provided for a differentiation of the curriculum at the University of Chicago on junior and senior college levels, a distinction which spread to other four-year institutions and also appeared as separate two-year junior colleges affiliated as a rule with certain larger schools of higher learning. But it is to be noticed that in nearly every case these early junior colleges were conceived of as integral or closely associated units of higher institutions. It was later that the present growing conception of the public junior college as an extension of local secondary education came.

If we seek for a definite line of transfer from secondary to college work, Morrison's definition is good. It appears at that point in the development of youth when independence in study and learning begins to appear in his intellectual life, and I am certain that it will be agreed that this is found as a rule nearer to the fifteenth year of school life than the thirteenth, more often among college juniors than among freshmen. Further, until there is a more wide spread readjustment of the college curriculum, it will remain difficult, as it is now, to discover essential differences between senior high-school classroom activities and those in the first two years of the college.

DEVELOPMENT

Recognition of a readjustment problem at the high-school-college gap came early, but the actual appearance of the junior college as a distinct educational unit was much later. A recent checking of junior colleges discovers the first date in the private list to be 1835, and no doubt Monticello Seminary at Godfrey, Illinois, was not at that time a junior college in the modern acceptance of the term. The earliest date in the list of public junior colleges is 1901, Mr. J. Stanley Brown's school at Joliet, Illinois.

As to the public junior college, it is found that 40 per cent of them came into existence during the years 1926 and 1927, the largest numbers in Iowa and California which produced thirteen and twelve respectively. This is the peak of the movement, and no one can predict what succeeding years will do. A total of 40 of these colleges began work with the opening of the school year in the autumn of 1927, and 39 of them had first year students only enrolled. A number, not included in this listing, were reported as about to open in the fall of 1928. Just three-fourths of the total of 146 are found in

date intervals since 1921. The junior college movement, so far as public institutions are concerned, is a new movement indeed.

The earliest date in the private college list is 1835, but no doubt the first appearance of private junior colleges of the modern type was nearer the 1900 point. The appearance of private junior college units is spread more evenly over the quarter century since 1900 than in the case of similar public institutions. One must include the date 1918 to embrace one-half of them, and for three-fourths the interval 1900-1909, 27.3 per cent having been organized before 1910. The majority of the three dozen included in the nineteenth century span were established after 1875, and there were but thirteen in the third quarter of the 100-year interval.

Here, as among the public group, a number of junior colleges (fifteen) began work for the first time in September of 1927, and two opened with the second semester. Fourteen of them had freshmen students only.

The facts as to number of junior colleges for the school year 1927-28 show that the movement has reached proportions which demand recognition and study on the part of thinking public school administrators. The greatest number of public institutions of this kind are found in the state of California, and this state leads all commonwealths in the junior college movement. The second state as to gross numbers is Iowa, and this is a very recent development. Only one other state has a frequency of over ten. This is Texas with seventeen junior colleges, but Kansas and Oklahoma have nine each. In the private list, the largest frequency is found accredited to the state of Texas (25), but Missouri, Kentucky, Tennessee, North Carolina, Virginia, and Illinois each has ten or more. There is a total of 42 junior colleges, both public and private, in the state of Texas, 36 in California, 26 in Iowa, 24 in Missouri, and more than ten in Kansas, Tennessee, Illinois, Kentucky, Minnesota, Oklahoma, North Carolina, Mississippi, Arkansas, Louisiana, and Virginia. Every state in the union except nine is represented in this junior college movement. Public junior colleges are found in 26 political units and private junior colleges in 38. Nearly two-thirds of the total of 382 are private junior colleges, and over one-third are public.

The increase in numbers of junior colleges during the last seven years since the Commonwealth Fund study made by Dr. Leonard V.

Koos of the University of Minnesota is over 100 per cent in the total. In public junior colleges, it is over 180 per cent, and in private nearly 75 per cent. The totals of the checking show 146 public and 236 private junior colleges in all. A number of others of both kinds began work in September of 1928; and no doubt the public junior college movement in particular will continue upward.

In view of the discussion to follow on proper standards for size of student body in the junior college, the figures of enrollment are significant as showing present status of existing units in this respect. It is found that the public junior colleges have the greatest total range, from less than 25 to 2,883 students; but that the range in private colleges is 24 to 525.

Public junior colleges are getting larger, the present median being nearly twice that of seven years ago. They are only slightly more variable as to size. The private junior college is some larger than it was and much more variable in size. Evidently, the new movement among public junior colleges is destined to produce an institution which will partake of the modern expansion in high-school enrollment. This, of course, is but logical in an extension of the secondary school. On the other hand, the private junior college seems to have remained a comparatively small school, taking care perhaps of a more selected group, possibly continuing as to size of enrollment the status of the old-time academy.

The two logical types of public junior colleges among those included in this report are those which are locally controlled and those supported wholly or in large part from state funds. The majority of the 146 public institutions listed are of the former kind, the greatest number (71) being high-school extensions in city school systems and 32 being parts of separate high-school districts. Thirteen separate junior college districts are found in California, and five in three other states which include county units.

The state supported junior colleges are more difficult to determine, but it is thought that at least 23 of the 146 are dependent wholly or in part upon state subsidy. About one-half of them are agricultural schools, five newly organized in the state of Arkansas. Another expansion of this kind is noted in Oklahoma where three agricultural schools one school of mines, one military school, one polytechnic school, and one arts college have very recently been established by the

state. This state group includes also four branches of state universities located on campuses of their own in other parts of the political units represented.

Both the public and the private junior college have been shown to be essentially secondary in their nature; and the majority of public institutions of this kind are direct extensions of local public high schools, the 23 state supported junior colleges constituting but 15.8 per cent of all. The greatest number, nearly 50 per cent, are in city school districts, nearly one-fourth are in high-school districts, California's thirteen junior college districts comprise about 10 per cent, and three schools in Louisiana and one each in Florida and Georgia are in county units.

The majority of the 236 private junior colleges are allied with one of nineteen different religious denominations, and about one-third are private venture schools. Two Y. M. C. A. colleges are located in Ohio, and one each in Colorado and Illinois. Cottey College at Nevada, Missouri, was organized by Mrs. V. A. C. Stockard in 1912 and taken over by the P. E. O. Sisterhood in 1927.

In the Commonwealth study of seven years ago, Dr. Koos found one-half of his public junior colleges in the Middle West and 40 per cent in the western section of the United States. The present investigation has located but a total of 65 per cent of the 146 public institutions in the West and Middle West. The increase seems to be in the South, which now has one-third of all public junior colleges.

As to private schools, Dr. Koos found one-half of all in the South and nearly one-third in the Middle West, only 11 per cent being in the West and 7 per cent in the East. This study found no striking shift of proportions in the South and Middle West, but located fewer junior colleges in the West and more in the Northeast and Middle Atlantic states.

Perhaps more significant than location, type of institution, or average size of student body is the actual gross size of that group of American youth the junior college is taking care of year by year. The leading states for the year 1927-28 are California with 7,200 students, Texas with 3,000, Missouri with 1,800, Michigan with 1,600, and Kansas with 1,300. They amount in all to nearly 25,000 during the year 1927-28, and the increment amounted to 5,900 students in one year's time, an increase of 31 per cent.

The facts on enrollment in the 236 private junior colleges included in this study were more difficult to obtain. Many of the college authorities were reluctant to report the actual facts, and from a few figures for only one of the two-year groups could be secured. For the years 1926-27, nine colleges were not included in the totals; and for the year 1927-28 ten. The totals would, of course, be larger, if these enrollments could have been included. It is probable that at least 18,000 students were enrolled in private junior colleges in 1926-27 and at least 20,000 in 1927-28.

Using the figures as actually reported, an increase of about 12 per cent in one year's time in total enrollment appears. This is but about a third of the proportion of increase noted for the public junior colleges (31 per cent). Further, a check by items would show that in seven states there was a decrease in total enrollment, and in nine states the numbers were practically the same for the last two years. No very large percentages of increase are found as was the case among the public junior college group; and this is true in particular of the states having the large total enrollments.

In 1926-27, these 236 private junior colleges graduated 4,342 students. This is 25 per cent of the total enrollment and 70 per cent of the second year group, a better showing as to product than was reported for public junior colleges. There, only 17 per cent of total enrollment were graduated and only 59 per cent of the sophomore class.

PURPOSES OF THE JUNIOR COLLEGE

I have gone thus into the details of figures in order to give rather completely the facts of the present status of the junior college as to number, enrollment, and product. If time would permit, I ought now to give in *more* detail levels of development as to objectives, legal background and standards, curriculum, and finance. However, brief summary statements only will be possible.

The stated purposes of education in the public junior college have not changed materially in the last seven years. The annual publications of the colleges emphasize above all the desirability of making higher education less expensive and the need from the parents' viewpoint of keeping young people longer at home.

New objectives mentioned in the latest catalogs and in personal correspondence seem, however, to put more stress upon several points.

First of all, there appears a consciousness of the struggle the universities are making with large enrollments, and an implied offer to give relief. But every one knows the history with regard to this in California. Higher education as a whole has become popularized, so that, while outside students are found in 31 public junior colleges, the congestion in the junior college years of the four-year institutions has increased.

One finds, in the second place, that the public junior college believes it can make a contribution to the evaluation of American education as a whole. Many think this is true, and no doubt experience and thought in the organization and administration of the junior college will help in an ultimate definition of the educational units of our American public school system. Perhaps a breaking up and recrystallization is now going on at the high-school-college gap similar to that at the elementary-high-school level which has resulted in the modern junior high school.

The third new viewpoint found among the stated purposes of the public junior college is that of raising the cultural status of the community of location. Perhaps, in addition to any real sincerity discovered in this offer, there is found a groping for values believed to be inherent in higher education, values beyond those already enjoyed by the community through its secondary schools.

Eight other new objectives appear, as well as the three given above. Only one can be mentioned here, an offer of exploratory courses on the college level. However, but a small proportion of the schools included in the analysis mention these, and the apparent confusion of liberal and vocational aims and the doubt as to just where a sampling of future life activities should come in the public school curriculum is perhaps not so serious as it seems to be.

More and more striking changes in private junior college objectives seem to appear in the seven years' contrast. This institution is careful to emphasize in its publications good moral training, a care for occupational outcomes, and a well rounded curriculum acceptable to the locality where it is situated.

Among the new purposes appearing, the first in frequency is better education in ethics and religion. I cannot explain why this did not appear more prominently in the standards of seven years ago. It is

the general conception that the private junior college, affiliated as it has been in large numbers with the church, has always stood for an emphasis on moral and religious training.

The other new aims found can be listed only. Those of greater frequency are the democratization of higher education, the meeting of local needs, better preparation for further college work, and an improvement of instruction.

I think that in general we may say that the modern junior college is attempting to define its purposes in accord with a desired status of respectability among other institutions offering college work, and in this is influenced in some degree by the needs of its immediate clientele so far as these are known.

LAWS AND STANDARDS

The modern public junior college is being formed, as are our other educational units, by the consensus of public opinion expressed in legislative enactment and in the published standards of certain state, regional, and nation wide educational agencies. The details of these requirements cannot, of course, be recited here.

The first junior college law (now in force) to be passed in any state was that of Kansas in 1917, and in the same year similar action was taken in the state of Michigan. In 1919, Oklahoma went on record for the junior college. In 1917, California passed her first junior college law, followed in 1921 and 1927 by further regulations. In 1925, Colorado appropriated funds for the improvement of two donated junior college sites. In 1927, there appeared public junior college laws in six states; Arizona, Illinois, Iowa, Minnesota, Missouri, and Montana dealing with the extension of local systems. During the same year, a special state-charter private junior college was established in Connecticut, a branch of the University of Pittsburgh appeared in Pennsylvania, and legislation in two other states (Idaho and Tennessee) provided for branches of state universities. In 1927 also, state university branches appeared in Utah and in the Philippines without special statute.

Fifteen states have to date made legislative provision of some kind for the junior colleges within their borders. The laws range in bulk and minutiae of detail from simple enabling statements in Oklahoma and Pennsylvania to the statutes in California which, when

briefed, included 144 clauses. When types of provisions made for the junior college in each state are sought, it is seen that California regulates authorization; types of colleges; organization, control, and suspension; keeping of records; relations with the state university; and finance. In no other state, do the laws deal with more than half of these important matters; and in two, as noted above, there are but brief provisions for authorization and organization. Twelve of the fifteen states have state laws authorizing the junior college; in thirteen management is dealt with; in ten, finance; and in but one state, California, are types defined, records prescribed, and the details of affiliation with the state university explained.

In general, it may be said that California is the only state which has provided by law for a complete state system of public junior colleges. However, in a number of states definitely arranged, detailed bills were introduced two years ago and again this year. It is probable that in a number of states rather inclusive junior college bills will be passed by the legislative assemblies during the present session.

When we turn to standardizing agencies other than the state legislature, one finds the state university, the state board of education, the state department of education, or certain commissions charged with a study of the state situation and the formulation of proper state standards for junior colleges. In 24 commonwealths, standards have been agreed upon. In four of these, the state university alone acts, in five a state board of education alone, in five the state department of education alone, and in two certain state commissions alone. In three states, the state department of education and the state university both have standards. In three states, the state board of education and the state university both have standards. In one state, the state department and a commission both have standards, while in one state the university and a commission both have standards.

It is significant to note four types of state commissions which have been charged with the duty of establishing junior college standards. In Alabama, there is the Alabama State College Association. To date, they have accepted without change the standards of the Association of Colleges and Secondary Schools of the Southern States. In Mississippi, the State Association of Mississippi Colleges, has appointed the Commission on Junior Colleges. In North Carolina, there

is the North Carolina College Conference; and in Texas, the Association of Texas Colleges.

The use of junior college standards formulated by certain regional organizations has been mentioned above. These are four in number. The well known North Central Association of Colleges and Secondary Schools needs no description. The Association of Colleges and Secondary Schools of the Southern States influences the junior college through its Commission on Institutions of Higher Education. The Association of Colleges and Secondary Schools of the Middle States and Maryland uses the American Council on Education standards. The newest regional organization is the Northwest Association of Secondary and Higher Schools, and this uses the American Council on Education standards also. The New England Association of Colleges and Secondary Schools does not recognize the junior college and has no standards for it.

Two nation-wide organizations influence junior college standards in a number of the states. These are the American Association of Junior Colleges and the American Council on Education. It is not the purpose or the function of these, nor of the four regional agencies, to operate in any state through the checking of conditions in specific junior colleges. They aim to formulate general standards which may be used in toto, as is done in certain states, or which shall be the basis for the establishment of state local standards for junior colleges.

CURRICULUM

What is the curriculum of the modern junior college? A generalized answer only can be given.

Junior college curriculums are in the large of two kinds, those which have more liberal offerings and those preparing rather definitely for occupational outcomes. The majority of the public junior colleges which are extensions of local high school systems have liberal curriculums but include certain exploratory, pre-vocational, or rather definitely organized occupational offerings. A small group of partially state supported public junior colleges have completely organized vocational curriculums.

In both public and private junior colleges, the largest single course offering and the largest among per cent of offerings is the modern foreign language group. In average number of semester hours offered

and in percentage of total offerings in both public and private junior colleges, the rank order of the five leading subjects is (1) modern foreign language, (2) science, (3) social sciences, (4) commerce, (5) English. In average number of semester hours offered and in percentage of total offerings in both public and private junior colleges, the five offerings lowest in rank are (1) agriculture, (2) extension and night work, (3) philosophy, (4) physical education, (5) engineering. The relative emphasis on English, modern foreign language, mathematics, and social science in public and in private junior colleges is very similar.

Seven years' increases in course offerings in private junior colleges are in such subjects as (1) science, (2) social science, (3) religion, (4) philosophy, (5) psychology, (6) physical education, (7) music, (8) art, (9) commerce, and (10) education. Seven years' reductions in course offerings in public junior colleges are in such subjects as (1) English, (2) languages, (3) mathematics, (4) science, (5) social science, (6) music, (7) agriculture, (8) commerce, (9) engineering, and (10) home economics.

Vocational subjects are but about 3 per cent to 5 per cent of the total offerings in public and private junior arts colleges. About two-thirds of public junior arts colleges and over 80 per cent of private junior arts colleges offer no vocational courses.

COST

Finally, and perhaps most important of all, what is the cost of the public junior college?

It is an anomaly in American public school finance that we spend more on a year's education of the older child than for the younger, more on the education of youth than for primary instruction. Small pupil groups and more expensive materials account for this in part, but not adequately. Our educational philosophy here is still distorted by pioneer attitudes. And so one must expect to find junior college costs at present intermediate between those on the secondary level and those for the senior college.

The figures for cost found in the Colorado investigation seem to confirm this expectation. The increase of unit cost from elementary to high school has been found to be in a ratio of one to at least two and one-half; and the central tendency of pupil costs in American

secondary schools, while spreading over a wide range, hovers about the figure \$175 as a mode. Among 4-year colleges and universities, the most usual average is found to be close to \$400 with the last two years of work costing at least 50 per cent more than the freshman and sophomore years. In the junior colleges, while student unit costs in some of the largest schools are as low as \$85, in the smaller colleges it is as high as \$500.

Administrators will recognize that the student-clock hour unit of cost is most meaningful, in a checking of expenditures in any educational unit, because it takes adequate account of every scheduled appointment for instruction. It is based on the essential fact, personal teaching contract between instructor and student. While the value of this cost unit is, no doubt, recognized in the junior college field, I am unable to report significant figures based upon it. There is another difficulty in junior college finance because of the problem of isolating the items in the thirteenth and fourteenth grades when the junior college is an extension of local secondary work. Here and there, this has been attempted, but not very successfully except for instruction alone.

The best data on expenditure per student in separate junior college units are found in the case of California's thirteen district junior colleges. Here, for 1927-28, the figures ranged from \$167 per student to \$440 with an average of \$285. It is probably certain that the public junior college will cost more than present high-school education and some less than upper division college work and that instruction will constitute the larger part of this, perhaps 75 per cent to 80 per cent of all. It appears also that, while student unit costs will be reduced by larger enrollments, they will mean larger total district expenditures and eventually an increase of local mill levies, even though tuition seems to take care of salaries and hopes are held for future state aid. In conclusion, it may be said that the problem of the public junior college is here. It cannot be avoided. It is going to come up for consideration in many city and state systems. Two factors alone, the reluctance of anxious parents to send the immature adolescent away from home and the struggle of higher institutions of learning with overcrowding, make this certain. Public school statesmen and state legislators are obligated to study this problem carefully, using objective methods of determination and reaching decisions in accord with the actual facts found in any situation.

SECOND SESSION

In Parlor K, Hotel Winton, at 9:00 A.M. Thursday, February 28, Galen Jones, Principal of Senior High School, Reading, Pennsylvania, called the second session of the Junior College Section to order.

Arthur Andrews, President of the Junior College of Grand Rapids, Michigan, presented his paper, *How the Junior High School Serves the Community*.

HOW THE JUNIOR COLLEGE SERVES THE COMMUNITY

ARTHUR ANDREWS,

PRESIDENT GRAND RAPIDS JUNIOR COLLEGE

In 1851 when President Tappan delivered his inaugural address at the University of Michigan, he stated that he saw a time in the future when the first two years of college work would be offered in the larger municipalities of the state. It was nearly a half century later that President Harper of the University of Chicago made application of this theory and became known as the "Father of the Junior College Movement in America." The idea was not a new one, however; for in the Middle West as early as 1857 private schools had been organized with a two year collegiate curriculum. In fact, the old fashioned academies also were highly similar to the junior college of to-day.

The education theory back of the junior college movement has been well recognized therefore from the first. The first two years of undergraduate work, both in form and content, are more closely allied to secondary education than to real university work. It is a period of general cultural training which is to be followed by specialization, a distinction which has long been recognized on the Continent, the German gymnasium and the French lycée both being based upon this principle. Notwithstanding the prophetic utterance of President Tappan and the pioneer work of President Harper, the junior college did not gain momentum in the United States until within quite recent years.

Several factors have contributed to a rapid growth within the last decade. First, of course, with a higher standard of living and a longer period of compulsory education, has come a tremendous in-

crease in the numbers in secondary education. The facts are so well known that they need no repeating, and with greater numbers completing secondary education, there has naturally been a much greater number matriculating at colleges and universities. From 1900 to 1910, the population of the country increased twenty-one per cent. During the same period, the collegiate enrollment of the United States increased eighty-five per cent. From 1910 to 1920, the population increased fourteen per cent while the enrollment in colleges increased ninety-six per cent. In 1900 there were 1,224 college students for every million of population, while in 1920 there were 3,236 college students for each million of population. This enormous growth has thrown a great burden upon the liberal arts colleges and in many states the universities have welcomed the relief afforded by the junior college movement. The great increase since the World War has put such an economic strain upon institutions of higher learning, that large classes and restricted enrollments have become quite general conditions.

Then, too, there has been a tendency on the part of professional schools to require a long period of preliminary training. Medical schools now quite generally require two or three years of cultural training before admitting students to the medical school proper. Johns Hopkins has already eliminated the first two years of undergraduate work, and Leland Stanford has taken preliminary steps in the same direction. Many law schools are becoming graduate schools and a longer period of training is required for dentistry, pharmacy, and business administration. In fact, this is true of nearly every phase of higher education.

This long period of training presents a serious financial problem to American citizens in ordinary circumstances, who desire their sons and daughters to have a college education; and to these the junior college has been of greatest service.

While I do not have a statistical study at hand, it is commonly stated by university authorities that students are being graduated from high school at a considerably younger age. I find by our records in the Grand Rapids Junior College that quite a number of students are matriculating in our freshman class sixteen and seventeen years of age. Many parents have felt that children of this age were not quite ready to meet the complex social life of a great university.

Whatever factors have contributed, the fact is clear that American communities everywhere have recognized the service rendered by junior colleges in offering two years of undergraduate training. At the present time, my own state has ten institutions of this type, with others contemplated. A late report indicates that there are nearly five hundred junior colleges in the United States. There are nearly fifty in the state of California alone, and this year, 1928 and 1929, there are between fifty and sixty thousand students enrolled.

The financial savings to the community made possible by this movement should in all fairness be emphasized. By utilizing to the full extent the equipment which is already available and by charging a nominal fee to the student, the cost to the community for junior college education is not greatly above that incurred for secondary education. Prof. W. M. Proctor, in his book, *The Junior College*, has shown that the savings to the state is equally important. He points out that, roughly speaking, it costs the state of California \$400,000 to educate 4,500 students in junior colleges. The same students, if educated in the state universities during the first two years, would have cost the state approximately \$1,575,000. In other words, this level of education was secured in local communities at just about one-fourth of what it would have cost the state treasury if given in the state universities.

In an article in the April *Atlantic* of 1927 written by Professor G. H. Palmer of Harvard, fear is expressed that the junior college movement will result in the student's being content with the junior college certificate. It is assumed that under other circumstances the student will have secured a university degree. Such instances are perhaps rare. Experience would rather point in the opposite direction. Some advocates of the junior college have argued that one contribution of this movement was to be that it would relieve the great universities of their heavy load. This does not seem to be the case. In spite of the fact that in some states a good many thousand students are in attendance at junior colleges, the enrollments at universities continue to increase. The only noticeable effect has been a shifting of the load to the junior and senior years, the work the university is best qualified to give.

In Grand Rapids, for many years we had the Junior College housed with Central High School; and as head of both institutions,

I was able to note that with the development of the Junior College, a large number of students who under other conditions would have thought that college education was impossible, were able to continue. By one means and another, many of them finally secured university degrees.

Dr. William Gray in an address before the ninth annual meeting of the American Association of Junior Colleges, emphasized the value of the junior college as a terminal unit. President C. C. Little of the University of Michigan has pointed out that there are many who may well profit from cultural training who are perhaps not fitted for the work of specialization. Even if considerable numbers do not go beyond the junior college, they will be better trained to function as good citizens. Of the effect of the establishment of junior colleges in various localities, Prof. Wm. M. Proctor says, "The most important contribution of the junior college to the state of California cannot be stated in terms of money cost or money economy. The presence of thirty-one public junior colleges, not to mention twelve private junior colleges, means that there are scattered throughout the state, just that many cultural and higher educational centers, which tend to raise the standards of living and thinking in those communities. It also means the equalization of educational opportunity. Every boy and girl in the state is stimulated by the knowledge that two years, at least, of higher education, may be had without prohibitive cost. Thus the junior college makes real the dream of a truly democratic system of public education."

Each year I have occasion to speak to the graduation classes in the high schools of the city, and at such times I emphasize the great service performed by the junior college in offering opportunity to those who have thought a college education impossible. Each year a large number of our very best students find it necessary to support themselves, although they are living at home, and the service rendered to this group cannot be measured in money. While there are some who feel that there are too many boys and girls in colleges and universities now, without debating the point, all would agree that we should not exclude those who rank among the best in their class. The theory of a democracy insists that we make use of superior intelligence wherever we may find it.

I think a point is to be made that the junior college serves the community in offering a superior type of education. Prof. W. C. Ells

of Leland Stanford has recently completed a comprehensive study which indicates that junior colleges seem to be qualified to make superior achievement in the last two years of university work. Prof. Ells studied the record of over 500 students who matriculated from junior colleges and compared their records with those made by students who had spent the first two years at Leland Stanford or other four year institutions. He found that the junior college matriculants made grades superior to those of the native students and that a larger percentage of them earned graduation honors, and that more went on with graduate work. The differences were quite marked. Prof. Ells does not believe that Leland Stanford students are inferior but rather that junior college students are superior to those enrolled at universities.

There are reasons why this should be so. The junior college makes possible small classes and individual instruction, and more careful supervision develops attitudes and habits of study which function in the last years of undergraduate work. There is, too, an insistence upon excellence of teaching, which is, perhaps, not often found at large universities. Further, it is probable that the junior college forms a selective function in sending on to the university only those who are qualified to do the work.

The junior college renders a distinctive service to the community in offering vocational training, much of which is peculiarly adapted to the needs of the locality where it is situated. It is not to be supposed that the junior college confines itself to the first two years of literary training. In Grand Rapids, and ours is quite a typical institution, we offer the following: two years of literary training, two years of preliminary law, two years of preliminary medicine, engineering, forestry, agriculture, landscape design, home economics, and physical education. In addition to this, we offer a variety of types of teachers' training, thus, fulfilling two of the three years of normal school training required by the State of Michigan for the life certificate. We have also a teachers' training course in music, which now requires three years and grants a life certificate upon the completion of the work.

In addition to all of this, the junior college undoubtedly falls short of its mission if it does not offer well planned curricula adapted to the community needs. President Frank Walters of the Fresno

State Teachers' College in discussing the junior college curriculum said, "With the growing interest developed in the adult education movement, there is opening up a field for the junior college, which has far reaching possibilities. President E. J. James of the University of Illinois, foresaw this development as early as 1905 and expressed at that time the belief that junior colleges would relieve the universities of the burden of extension work and do it more effectively without the deterrent costs entailed by distance from the localities in need of such service." In Grand Rapids we have an Evening Institute and offer classes in English, French, German, Spanish, economics, psychology, accounting, music, applied art, practical art, and other courses. The work is developing and this is a field in which the junior college is to render distinct service.

Another field in which the students seek training without planning to secure a university degree is that of business administration. Here the idea is not so much to furnish preliminary training for advanced courses as to give a practical training to those who cannot or do not desire to secure a university degree. A typical course of this kind will be found in the accounting curriculum, which covers two years and includes four courses in accounting and one in auditing. In addition there are courses in economics, business organization, business law, economic history, economic geography, business statistics, money, credit and banking, corporation and finance, labor economics, and electives. Students who complete this work find, for the most part, good openings, which clearly justifies the type of work. The same may be said of the commerce and finance curriculum as well as the secretarial curriculum intended for those who desire to prepare themselves for the duties of private secretaries, office managers, and correspondence managers. The training in the latter is more comprehensive than that offered by business colleges but more intensive than the university course leading to a secretarial degree. The curriculum includes courses in shorthand, typewriting, professional dictation, business methods, office practice, and courses in accounting, business law, business organization, and the like. The testimony of business houses indicates that this training is very much worth while, and there is a continuous demand for those who complete the work.

. Much the same thing may be said for engineering. Those who complete two years work have quite readily found employment. This

type of training has been sufficiently noticed so that the American Society of Engineers has recognized the establishment of a two year course generally known as, "Training for Junior Engineers."

A most valuable service to the community is offered in training for nurses. Here the arrangement with the hospitals is a co-operative one, with the Junior College offering a variety of courses. In Grand Rapids all the nurses from the hospitals have a full year of academic training in the college; and a similar plan is in operation in many other cities. Courses are offered in anatomy, physiology, chemistry, drugs and solutions, hygiene, bacteriology, nutrition, history of nursing; and recently we have been giving courses in nursing procedures.

To any one who is familiar with the problems presented in the training of nurses, it is unnecessary to explain how this work raises the standards of instruction. A supervisor of a local hospital has repeatedly said that there is no comparison between the training now offered and that when the instruction was attempted by the hospitals, and the work is of such a quality that it is only equaled by private hospitals which are richly endowed. The experiment, too, has offered an opportunity in educating the public to the value of community co-operation.

The art department has proved to be of practical value in many phases of life. In the average art departments, only those students are encouraged to enter who have shown exceptional ability. Of the many departments which they may enter four may be briefly discussed: the normal art, commercial art, interior decoration, costume illustration. The normal course is designed for those who as teachers expect later to receive a life certificate or a degree from a normal school. Those who complete the work in commercial art will go directly into studios, where they may do newspaper work, specialize in making posters for theatres or stores, work for engraving companies, do show card writing, and in our own city, particularly, the designing and decoration of furniture. The students who have specialized in interior decoration may work in art departments or drapery departments in department stores or home furnishing shops. A recent graduate of our art department is employed by a large establishment and is very well paid for advising in regard to the arrangements of draperies and other furnishings. Those interested in costume illustrations do drawings for advertisements for department stores.

While students are still engaged in training, they take orders for lettered mottoes, Christmas card designs, and posters concerning civic activities. They have made many mural panels for public buildings, a large number of program covers for conventions, and painted stage drops for local theatres.

This art work has made an appeal to women in the community who have the responsibility for homes. They enroll as special students and are most interested in the work of interior decoration.

Professor R. J. Leonard of Columbia University in speaking before the fourth annual convention of the American Association of Junior Colleges, offered some criticism at that time because the junior college was not alert to the responsibility of doing more than offer preliminary training for the university. Prof. L. V. Koos in his book, *The Junior College Movement*, has made the same point. There are obvious reasons why this criticism has been merited in the past. Public junior colleges have for the most part been established in connection with the high schools and in the beginning have attempted only work they were qualified to carry out without greatly increased facilities or new personnel in the faculty. These schools are still in an experimental state, and justify the tendency of universities to look upon the development of junior colleges with suspicion and to accept credits in a very limited field. Hence, very definite obstacles are thrown in the way; but as the junior college is gaining momentum and administrators are becoming more confident, the opportunities and possibilities of service are now being more clearly recognized.

After all is said, the offering of special work particularly planned to meet the needs of the community, is but a part of the responsibility involved. More than half a century ago, President James B. Angell at the University of Michigan was vigorously advocating the then radical theory that higher education should be brought within the reach of all. The junior college is the logical answer to that contention. The inevitable consequence is that a much larger number will have a freer expression and the life of the community will be finer and richer because of the development of the American junior college.

The paper, *Orientation Courses in Junior Colleges*, was presented by John W. Harbeson, Principal of Junior College, Pasadena, California.

A SUGGESTED ORIENTATION PROGRAM FOR JUNIOR COLLEGES

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Last year the writer made a survey of orientation courses in public junior colleges, the results of which appeared in a paper published in the Sixth Yearbook of the Department of Superintendence of the National Educational Association. Four distinct types of orientation courses were discovered: First, a survey course in the social sciences,—designated by such titles as History of Civilization, The Story of Mankind, etc.; Second, a survey course of the humanities covering the expressions of the race in music, art and literature; Third, a survey course in the natural sciences the aim of which was to provide a foundation for more specialized courses in the upper classes; and Fourth, a course in group counseling dealing with problems of students which could be at least partially met in class work.

The aims of the courses as reported by the deans and stated in the order of their frequency of mention were the following:

1. Educational guidance.
2. Improvement of study methods.
3. Vocational guidance.
4. To acquaint the student with his abilities, aptitudes and difficulties.
5. Adjustment to college life.
6. Budgeting of student time.
7. To know and appreciate the world's civilization.
8. Study of worthy life objectives.
9. Knowledge of what education really means.
10. Development of avocations.

It will be readily seen from these aims that the fourth type of orientation course mentioned above,—“A course in Group Counseling.” is the type in which junior college deans are most interested.

As a result of the study of last year and some experience with an orientation course in his own institution the writer will venture to suggest a program of orientation which, in his opinion, would meet a real need on the part of college freshmen. You will note the

use of the term "program" rather than "course" because the material involves not one but several courses and an adequate machinery for guidance. It presupposes also that the program of studies of the freshman student will be adjusted to individual needs and articulate with his high-school course without duplication of subject matter.

In the study made last year 22 junior college deans reported that the orientation course really belonged in the high school as over against 8 who felt that it belonged in college. 21 of 26 deans reporting stated also that if such a course were given in the high school, it would not be needed in the freshman year of college. Concurring in this belief the authorities of the Pasadena Junior College, a four year institution embracing grades 11 to 14 inclusive, have placed the orientation course and the beginning of the guidance program in their freshman year of 11th grade, and the orientation program hereinafter described is in large part a description of the orientation program of that institution.

For a large number of college freshmen an adequate program of orientation will embrace general survey courses in the fields of natural science, the humanities and social science. Such courses are in successful operation and in fact form the backbone of the freshman year in many outstanding colleges of which Stephens and Scripps may serve as typical examples. The extent of their need, however, depends largely upon the high-school training of the students. Some students will need survey courses in all these fields, some in only one or two and possibly some in none at all. The very administration of such a program, therefore, requires an adequate machinery of guidance. With this brief reference to the survey courses the remainder of this paper will deal with the course in group counseling which is to be required of all students in the freshman year.

Legitimate aims of a course in group counseling.—The aims of the course in group counseling may be summarized as follows:—

1. The framing of a working philosophy of life put in terms of worthy life objectives.
2. Adjustment to college environment and life.
3. Improvement in methods of study.
4. Training in thinking for ones self involving the use of the scientific method.

5. Training in the use of the library.
6. Self knowledge and self development.
7. Avocational adjustment.
8. Educational guidance.
9. Vocational guidance.
10. Standards of citizenship.
11. Development within the student of a technique of self direction.

The attainment of these aims will direct the thinking of the student into such problems as are not touched in other college courses. The group counseling of the teacher along these lines will reduce the time required for private counseling thereby putting the expense of an adequate guidance program for college students on a reasonable basis. Moreover, as a result of this course in group counseling the student will ultimately become his own counselor, thereby approaching the desired goal of "as little of the best counseling as possible."

The content of the course in group counseling.—The content of a course in group counseling as suggested might be as follows:—

First, a framing of life objectives,—developed through class discussion.

Second. The college plant; requirements and electives in various curricula; rules, regulations and policies of the college.

Third. The administration of a testing program, covering approximately three or four weeks, using the following tests:—

- I. Intelligence tests. (Select two)
 - a. Terman Group Test of Mental Ability,—11th year.
 - b. Kuhlman-Anderson Intelligence Test.
 - c. Otis Self-administering Test of Mental Ability,—Higher Examination.
 - d. Army Alpha Group Examination.
 - e. Thorndike Intelligence Examination,—13th year.
- II. Vocabulary.
 - a. Inglis Test of English Vocabulary.
- III. Silent Reading.
 - a. Whipple Reading Test, High School and College.
- IV. Mechanical Ability.
 - a. McQuarrie Test of Mechanical Ability.

V. Musical Ability.

- a. Seashore.

VI. Vocational Interests.

- a. Cowdery Interest Report Blanks.

VII. Personality and Character.

- a. Pressy X-O, Form A. (To indicate some deviations from normal in emotions.)
- b. Laird Introvert-extrovert Scale.
- c. Raubenheimer Overstatement.
- d. Hughes Trait Rating Card.

With the exception of the intelligence test all of these may be corrected in class through an exchange of papers. The norms for the college and the country at large are compared and the student is given his quintile placement in each test through private conference with his instructor. With careful tact on the part of the instructor those who rank at the top can be held within a reasonable state of humility and those who rank in the lowest fifth can be rescued from depression. These test results are placed on the students permanent record card and form the basis of much of the later counseling. Students find both in their deficiencies and outstanding endowments as revealed in the test scores powerful stimuli for self improvement and self development. (See appendix to this article.)

Fourth. Methods of study.

- a. Necessity of daily preparation.
- b. Importance of regular reviews.
- c. Physical environment for effective study.
- d. Training in the scientific method and problem solving.
- e. Training in the use of library, including the use of Readers Guide, library files, the Dewey classification system, knowledge of regular government publications, the making of a complete bibliography.

Fifth. Study of the avocations.

The importance of an avocation and a study of the important avocations.

Sixth. Study of the vocations.

Directed readings and study in vocations in which the students are interested. Each student prepares a thousand word paper on the vocation in which he is most interested and reports of these studies are made in class.

Seventh. Mental hygiene as related to effective behavior and social efficiency. The development of an integrated personality.

The length of the course need not be longer than two units per week, sixty minute periods, for one semester. It would be madness of course to expect the student to reach the solution of these problems in this short period. However, he can be led to a realization of the problems and be started on some constructive thinking which will lead him in the future to be his own best counselor. In addition to the two class periods there should be a third period devoted to a lecture by some outside speaker for which all classes are assembled in one group. These lectures should be chiefly along vocational lines but other subjects of personal interests may also be introduced.

No single text is adequate for such a course. A syllabus will guide the study and frequent references should be made for library reading. Lyman or Crawford on *How to Study* make good references for much of the course. There is great need for a general text covering such topics as those outlined above, and containing references for supplementary reading and study.

Part of the group counseling course in a program of guidance.—The guidance program of the Pasadena Junior College is centered in a Department of Personnel. This department is conducted by a dean who is trained in education psychology and personnel procedure and is a member of the administration staff of the college. He is assisted by 15 specially selected instructors each giving 4/5 of his time to instruction and 1/5 to counseling. Each counselor is responsible for 200 students all of whom with the exception of some unavoidable transfers, he has had in the course in group counseling. There is a suite of counseling offices adjacent to the office of the Dean of Personnel and each counselor maintains an office hour daily.

The orientation course forms the very foundation of the guidance program. Besides the three classes taught in his own department, each counselor teaches an eleventh grade group counseling class each semester with an enrollment of approximately 30 students. This makes a total of 60 students per year, who, if they remained in school for the entire four years would comprise a counseling group of 240 students. The drops during the four years, however, bring the group down to approximately 200 students. These students feel free to visit

their counselor with personal and educational problems. The counselor also advises with them in making study lists and is responsible for meeting the curriculum requirements as well as satisfying the educational needs of the students.

The chief advantages of the plan are first, that the guidance program is held to a reasonable cost and secondly, the fact that the counseling rests both upon adequate objectives data, such as that test scores, academic records etc., and upon a personal acquaintance of counselor and pupil. Fifteen counselors giving 1/5 of their time to the guidance program are the equivalent of 3 full term counselors, which for a college of 3000 students do not entail an unreasonable expense. Inasmuch, moreover, as the counselor has had practically all of his 200 students in class he has a personal knowledge regarding them, which, coupled with the objective data make him a wise and trustworthy guide. Fifteen part-time counselors, well trained, and knowing their students certainly are preferable to three full time counselors, however superior in training and technique, who are endeavoring to spread their efforts over a thousand students each, whose records constitute only an academic interest and with whom they can never hope to form an intimate friendship and acquaintance.

Needless to say, this orientation staff must be a carefully selected group. Not only should they be carefully selected from the standpoint of native endowment and previous training and experience, but they must be further trained on the job and this becomes one of the important functions of the Dean of Personnel.

Conclusion.—The chief values of the orientation course as a course in group counseling therefore, may be summarized as follows:

1. It provides an easy means for a comprehensive testing program for the student body.
2. It provides the data in the form of test scores, ratings, and cumulative record data necessary for an intelligent counseling program.
3. It gives the counselor a class contact and thereby a personal acquaintance with the student for whom he is made responsible.
4. It provides an opportunity to supply the students with valuable information not offered in other courses which, if given in private conferences would make the cost prohibitive.

5. It provides individual guidance on a scientific basis at a cost easily within the reach of the public junior college.

6. It gives each student an intelligent appreciation of the serious problems of life and supplies him the most accurate knowledge available regarding his abilities.

7. It awakens within the student an interest in worthy lifetime objectives and starts him to thinking on educational and vocational goals.

In conclusion the following basic truth stated by Doermann in his book "The Orientation of College Freshmen" may be laid down as the most fundamental principle in student guidance. "Any attempt to direct the student without awakening him and preparing him to take full responsibility for his own decisions, and for managing his own career is an erroneous approach to the problem of guidance." This basic truth the writer has endeavored to keep uppermost in mind in planning the orientation course as one in group guidance.

APPENDIX

THE USE OF TEST DATA IN STUDENT COUNSELING AND FRAMING OF SCHOOL POLICIES

The extent to which the test data may be used in directing school policies as well as in counseling the student on his individual problems may be seen from the following tables. It is the practice of the Pasadena Junior College to divide students into two ability groupings on the basis of the high-school record,—designated as C and D respectively. The C group consists of those students who have 15 of the 16 high-school units of a grade of 80 or better; the D group comprises those students who have less than 15 high-school units with a grade of 80 or better. The latter group under current practice cannot qualify for admission into the University of California or other standard colleges and universities. These two groups are kept separate for class work. The M group in the following tests comprises the marginal group or those students who have 12 or more but less than 15 grades of 80 or better in the high-school record. The following tables show the means, medians, modes, ranges, standard deviations and numbers respectively for the three groups, classified according to sex for the following tests:

- I. Thorndike College Entrance Examination.
- II. Army Alpha Intelligence Examination.
- III. Inglis Vocabulary Test.
- IV. Whipple Reading Test.
- V. McQuarrie Mechanical Ability Test.

I. THORNDIKE COLLEGE ENTRANCE EXAMINATION

1. Data for men:

Group	Mean	Median	Mode	Range	S. D.	No.
C men	75.4	75.214	77.72	65	16	50
D "	61.75	63.562	67	83	15.05	119
M "	64.165	67	67	72	17.05	57

Comparison of the three groups in terms of medians:

Percentage of D's equaling and exceeding the median of the C's	20%
Percentage of M's equaling and exceeding the median of the C's	24.6%
Percentage of M's equaling and exceeding the median of the D's	58.9%

2. Data for women:

Group	Mean	Median	Mode	Range	S. D.	No.
C women	65.465	66.3	67	52	11.85	101
D "	52.66	52.22	52.47	57	13.65	68
M "	53.39	51.16	52.47	57	14.4	36

Percentage of D's equaling and exceeding the median of the C's	17.5%
Percentage of M's equaling and exceeding the median of the C's	19.5%
Percentage of M's equaling and exceeding the median of the D's	46.9%

II. ARMY ALPHA INTELLIGENCE EXAMINATION

1. Data for men:

Table showing the means, medians, modes, ranges, standard deviations, and numbers involved for the three groups of men in the Army Alpha Intelligence Examination.

Group	Mean	Median	Mode	Range	S. D.	No.
C men	148.46	152.5	157	115	22.6	120
D "	139.15	141.18	147	148	25.9	233
M "	142.69	145.333	162	129	27.7	80

Comparison of the three groups in terms of median scores:

Percentage of D's equaling and exceeding the median of the C's	32.3%
Percentage of M's equaling and exceeding the median of the C's	40%
Percentage of M's equaling and exceeding the median of the D's	54.3%

2. Data for Women (Army Alpha Test)

Group	Mean	Median	Mode	Range	S. D.	No.
C women	142.34	145.677	157	118	21.85	218
D "	130.87	132.31	147	130	23.45	137
M "	129.96	129.5	137	128	22.75	62

Comparison of the three groups in terms of medians:

Percentage of D's equaling and exceeding the median of the C's	30.5%
Percentage of M's equaling and exceeding the median of the C's	25.4%
Percentage of M's equaling and exceeding the median of the D's	45.8%

III. INGLIS VOCABULARY TEST

1. Data for men:

Group	Mean	Median	Mode	Range	S. D.	No.
C men	101.83	107.41	112	111	23	87
D "	94.535	95.407	92	88	20.6	154
M "	94.845	100	102	81	24.3	37

Comparison of the three groups in terms of medians:

Percentage of D's equaling and exceeding the median of the C's	29.8%
Percentage of M's equaling and exceeding the median of the C's	34.6%
Percentage of M's equaling and exceeding the median of the D's	53.4%

2. Data for women:

Group	Mean	Median	Mode	Range	S. D.	No.
C women	103.79	104.678	97	75	17.3	137
D "	91.3	91.75	92	91	19.7	87
M "	95.537	94	85	85	18.6	41

Comparison of the three groups in terms of medians:

Percentage of D's equaling and exceeding the median of the C's	25.6%
Percentage of M's equaling and exceeding the median of the C's	30.6%
Percentage of M's equaling and exceeding the median of the D's	54.5%

IV. WHIPPLE READING TEST

1. Data for men:

Group	Mean	Median	Mode	Range	S. D.	No.
C men	71.038	73.07	72	71	18.45	26
D "	48.44	46.72	47	93	28.5	38
M "	49.14	45.75	47.17	79	30.9	7

Comparison in terms of medians:

Percentage of D's equaling and exceeding the median of the C's	26%
Percentage of M's equaling and exceeding the median of the C's	28.3%
Percentage of M's equaling and exceeding the median of the D's	45%

2. Data for women:

Group	Mean	Median	Mode	Range	S. D.	No.
C women	65.015	73.25	92	76	25	48
D "	51.432	48.66	47	90	27.6	26
M "	51.645	48.25	47	88	25.1	14

Comparison of the three groups in terms of medians:

Percentage of D's equaling and exceeding the median of the C's	27.3%
Percentage of M's equaling and exceeding the median of the C's	23%
Percentage of M's equaling and exceeding the median of the D's	48%

V. MCQUARRIE MECHANICAL ABILITY TEST

1. Data for men:

Group	Mean	Median	Mode	Range	S. D.	No.
C men	66.459	67.41	67.47	63	16	37
D "	69.928	70.036	72	59	10.9	99
M "	68.591	65.75	67, 62, 52	54	14.8	22

Comparison of the three groups in terms of medians:

Percentage of D's equaling and exceeding the median of the C's	57.5%
Percentage of M's equaling and exceeding the median of the C's	44.2%
Percentage of M's equaling and exceeding the median of the D's	38%

2. Data for women:

Group	Mean	Median	Mode	Range	S. D.	No.
C women	64.18	63.16	62	65	14.05	78
D "	64.233	63.28	72	56	13.35	56
M "	64.593	65.125	57	51	14.05	27

Comparison of the three groups in terms of medians:

Percentage of D's equaling and exceeding the median of the C's	50.2%
Percentage of M's equaling and exceeding the median of the C's	50.8%
Percentage of M's equaling and exceeding the median of the D's	50.5%

It will be seen at a glance that from 17 to 32 per cent of the non-recommended students equal and exceed the medians of the fully recommended students in the two intelligence examinations. In the vocabulary tests from 25 to 30 per cent of the non-recommended students have so placed. In the Whipple Reading Test appears the greatest difference in the mean scores of the two groups and in the mechanical ability test the non-recommended students surpass the fully recommended group. From these facts we may conclude that at least a third of the non-recommended group have the ability to do work on a par with the median of the fully recommended group; that the non-recommended student is likely to be a poor reader and special effort must be made in these classes to improve both rate and comprehension of reading; and that the less capable student may be expected to compete at less of a handicap in the mechanical subjects. As a result of such tests the writer has observed a number of students treble the rates of reading, most of whom were not previously ever conscious of this handicap to good scholarship. The self knowledge gained by the students as a result of these tests is of inestimable value to self development. These test data, when not over-

emphasized, may be made the basis of much wise counseling of the student.

Superintendent of Schools, George Melcher, Kansas City, Missouri, read his paper, *Duplication of Courses in Junior Colleges and High Schools*.

THE DUPLICATION OF COURSES IN JUNIOR COLLEGES AND HIGH SCHOOLS

GEORGE MELCHER,
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Though tax-supported public elementary schools admitting for gratuitous instruction all the children of a town or community were established in some centers in America in the seventeenth century, it remained for the nineteenth century to make gratuitous elementary instruction universal so that every child between the ages of six and fourteen has an opportunity to secure at least an elementary education.

The last quarter of the nineteenth century saw the rapid development of the tax-supported secondary or high school. This institution rapidly evolved into a four year institution requiring for admission an elementary school course and offering four year courses that prepared students for entering college or university and also offering four year terminal courses for those students not desiring to enter higher institutions of learning, but ambitious for better training for business and citizenship.

The first quarter of the twentieth century has seen the tax-supported public high school become practically universal so that every boy and girl between the ages of twelve and eighteen who so desires finds it possible to secure a four year secondary school course. This same period has seen the beginning of the tax-supported junior college offering two years of college work beyond the four year high school.

The tendency of the times seems to point to a very rapid development of this institution. California now has 35 junior colleges; Texas, 20; Iowa, 17; and the majority of the other states from 1 to 10.

The growth of the public high school has enabled colleges and universities to raise their standards of admission and their standards of work in both their liberal arts course and their professional courses. By a process of accumulation of courses the number of years required for entrance into the professions has become exceedingly great in America. In the event a boy desires to enter upon the practice of medicine he proceeds as follows: He enters kindergarten at five years of age, spends one year in kindergarten, eight years in the elementary grades, four years in high school, four years in college—a liberal arts course, four years in a medical school, and two years internship, or a total of twenty-three years. If favored with good health, he can be ready for medical practice at the age of twenty-eight. He could, of course, omit the internship and begin practice at twenty-six years of age. He could omit a part or all of his liberal arts course and take his training in a medical school with lower standards of admission and be ready for practice somewhat younger.

Some of the professions do not require so many years of preparation as medicine. However, if a young man desires a college course it requires normally seventeen years—one year kindergarten, eight years elementary grades, four years high school, four years college—before he is ready to enter upon his professional training. If he enters kindergarten at five years of age, he is twenty-two years old when he is ready to begin his professional preparation.

The length of time spent in elementary, secondary, and college courses preceding professional training is longer in America than in any other country. We have spread our courses exceedingly thin; allowed a large amount of useless repetition and duplication; permitted the inclusion of many dead-wood, time-consuming, so-called modern courses; and are wasting at least two years of valuable time for the youth of America, and, thus, in turn, robbing society of two years of valuable service.

While eight years is the prevailing elementary school period in America, it has been clearly demonstrated by certain cities and communities that an elementary school course can be satisfactorily completed in seven years—a saving of one full year. See Report of Committee on Length of Elementary Education, University of Chicago Press, November, 1927. This saving of one year has been accomplished by eliminating certain useless material, by efficient organ-

ization of subject matter, by high grade teaching, and by expert supervision.

If one year can thus be saved and is being saved in certain communities in the elementary schools, we are to-day to inquire whether a similar saving for pupils in the upper secondary school years and the lower college years is possible. Is it possible to reorganize the material of the third and fourth years of the senior college and the first and second years of the college or university so as to do the work in three years instead of the four now required? On page 252, "Junior College," by L. V. Koos, is found the following statement:

"The only subject prescribed by Yale in 1822 in addition to the work in the classic languages and literatures was arithmetic, a subject now regarded as appropriate to the elementary school and, except for those who pursue it as commercial arithmetic, restricted to that unit in our traditional 8-4 system of organization. By the middle of the next decade two more subjects now characteristically receiving their major emphases in elementary schools, viz., English, grammar and geography, were added to the entrance examinations. These three subjects persisted as requirements until near the close of the century, when they disappeared. The first subject in addition to the work in the ancient languages now typically of high-school grade to make its appearance is what we now refer to as elementary algebra. This appearance must have taken place in the forties. In the passage of three decades more, the prescription in this subject had been extended to include essentially what we now designate as "advanced" or "higher" algebra. Before the extension last mentioned was made, plane geometry (or Euclid) had been prescribed, so that by the end of the nineteenth century, the equivalent of two and one-half units of supra-arithmetical mathematics was required. Upon the heels of algebra and geometry, followed subject after subject, until at the end of the period, in addition to the prescriptions in the classics, there were those in algebra through quadratics, plane geometry, ancient history, French or German, and English literature.

"These changes, put in quantitative terms and considering only work now regarded as appropriately of secondary school

grade, constitute an increase from approximately seven to fourteen or fifteen units. In other words, the amount of work prescribed for admission to colleges was at least doubled during this period of three quarters of a century. . . . During this period the amount required for admission increased from about 7 units of work now of secondary school grade to 14 or 14½ units, i. e., the requirements practically doubled. Putting this fact in another way, one may say that the amount of work was increased from what could be covered in two years to what would normally require about four years for completion. The increase in character and amount of material required is in approximate agreement with the typical difference in age of the college entrant, i. e., two years, as shown in the portion of this report immediately preceding."

On pages 258 to 262, Koos discusses the downward shift of the material of the college curriculum. In his summary of this discussion we find the following statements:

"Except for the classics all important courses and subjects finding place in college curricula during any considerable period have shown a marked tendency to shift to lower levels. This shift has not stopped at the freshman year of college, but has continued into the secondary unit below, including both subjects prescribed for college entrance and a host of others not—at least not often—prescribed."

On pages 263 to 274, Mr. Koos makes an extensive comparison of recent high-school courses with the older college courses in the same subjects with the following conclusions:

"Each of the comparisons made tells essentially the same story, that the subjects and courses during the process of depression to lower years in the system almost universal in collegiate materials of instruction have experienced no apparent dilution. On the other hand, in the group of courses considered, there are some, such as plane geometry and American history, which have been notably extended as to content and even strengthened as to difficulty during the period of downward trend. All of them, of course, are much enriched as to nature of content, and improved as instruments of education, i. e., in their pedagogical make-up."

The comparisons by Dr. Koos include the following subjects: history of English literature, plane geometry, physics, chemistry, general history, American history, economics, and French.

Koos further shows that the entrance age of the college student in the past one hundred years has advanced about two years and that the units of secondary rank required for entrance into college have more than doubled. All of this has happened notwithstanding the fact that the length of the school year in elementary school and high school has been greatly increased and that the quality of elementary and secondary instruction has been materially improved.

As shown by Koos and others, many of the subjects and much of the present content of these subjects now taught in the last two years of high school are the older college subjects shifted downward from the college. College-trained high school teachers have a tendency to teach in the high school the same subjects and the same content that they themselves learned in college. Also, the college and the high school have been under entirely different school organizations so that no coördination has been effected between the high school and the college. As a result many duplications of courses are found among the offerings of the last two years of high school and the first two years of college. President J. R. Angell in *School Review*, January, 1913, on "The Duplication of School Work by the College" says:

"The wealth of subject matter offered in a high-school curriculum to-day often hopelessly outruns any possibility of mastery by a given pupil within a four year period and much therefore remains untouched which the student may possibly wish to attack at a later point in his career. The college has been willing in increasing degree to satisfy this demand and as a result we find a wide range of identical subjects taught in high school and college. The mere fact that the two varieties of institutions offer the same work is not itself conclusive evidence of waste, but a careful study of the situation leads one to question whether the present practice is really defensible in all its aspects. . . . we may well remember that our colleges pursue two lines in their practice with regard to the school work which they duplicate. In the one case they do the seemingly obvious thing and after a student has covered certain ground in school he is permitted to proceed in college to the

next more advanced stage of the same subject. Work in the modern languages may illustrate this case. But in the second instance, where the colleges offer work which is nominally identical with that done in the schools, and entrance credit is given for the same, the student, when once he is safely inside the college walls, finds himself set to doing right over again much which he has already done in school. This procedure is frequently justified on the ground that the work is carried on in college from a more mature and advanced point of view. Certain courses in science both physical and biological may illustrate this case. . . ."

On page 401, "Junior College," Koos says:

"The actual repetition of materials can hardly be less than a full fifth of all the work taken in the high school by such a group of students. This is the equivalent of four-fifths of a high-school year. Even after allowance is made for some measure of review to add to the fixation of fundamental skills accomplished only by means of extended drill, what remains is a big price to pay for our attempts to divide secondary education between two separate institutions."

On page 403, "Junior College," Koos further says:

"There is much that is secondary in character in the offerings to students in the first two years of their college careers. Of all work offered in these years more than a fifth is clearly secondary and an even larger amount is partly secondary, the total proportion of work designated as both secondary and partly secondary ranging between two-fifths and a half of the entire offering. All these proportions are strikingly augmented when the computations are based on the work actually taken by a group of students. In this instance almost a third is secondary, a generous two-fifths partly secondary, and almost three-fourths in both these classifications. These figures are, of course, in excess of the proportion of actual repetition of high-school work, but this amounts to something like a fifth of the full high-school curriculum, or four-fifths of a high school year. Moreover, there is no notable tendency in the direction of recognition in anything like a systematic way in the college of high-school work previously covered."

Many of the leading universities are now regarding the freshman and sophomore years of the junior college work as really secondary school work. With the development of the public and private junior colleges, some of the leading universities are looking forward to discontinuing the freshman and sophomore work in the universities. The organization of the junior college and the high school in the same school system and often in the same school building, even under the same principal, insures a closer coördination of the work and should rapidly lead to elimination of over-lapping and duplicating courses.

Let us examine a few courses; first English. Fifty years ago before the development of the public high school, the academy prepared students for college. There was little or no over-lapping in English in the academy and in the college. The academy courses in English were generally meager—just enough to meet the entrance requirements of the college. When the public high school was developed and awoke to the duty of preparing more of its students for living than for college, a curriculum of four full years in English was developed and duplication of work in high school and college entered. Though the four year course may be ideal for the non-college student, the college student often repeats in his early years at college—possibly in his first year—the same courses that he had in his senior year at high school. Such duplication is both wasteful of time and harmful to the student especially in formation of habits of study and attitudes toward work. The freshman student is only a year older than the senior high-school student. He has not broadened his outlook on life. He must have about the same type of instruction as in high school. Some of the common repetitions are Hamlet, Macbeth, and Julius Caesar; also certain selections from Addison, Steele, Dryden, Swift, Pope, Browning, Tennyson, and Poe. One of the Junior College teachers reports that the following poems of Browning are commonly read in high school and re-read in Junior College:

Rabbi ben Ezra
Andrea del Sarto
Fra Lippo Lippi
Prospice
The Lost Leader
A Grammarian's Funeral
The Bishop Orders His Tomb
Cavalier Tunes

The Italian in England
Home Thoughts from Abroad

Other later selections often repeated are:

Pope—Rape of the Lock
Gray—Elegy in a Country Churchyard
Collins—Ode to Evening
Goldsmith—Deserted Village
Wordsworth—Ode to Intimations of Immortality
 The Cuckoo
 Yarrow Unvisited
 The Solitary Reaper
Shelley—The Sky Lark
 The West Wind
Keats—Eve of St. Agnes
 Ode on Greek Urn
 To Autumn
 To the Nightingale
Carlisle—Essay on Burns
Coleridge—Ancient Mariner
Thackeray—Vanity Fair
Dickens—David Copperfield

There is much duplication in English composition for the upper half of high school students and since this upper half furnishes the great majority of the college students this repetition is largely waste. The super-student who was scholarly in his high school work suffers most in duplication of courses. The duplication is almost one hundred per cent in mechanics, diction, structure, and forms of discourse.

In history of English literature an excessive amount of duplication occurs. Every institution feels that it must study the bibliography of the outstanding authors and must include in the courses the "high spots" in the history of the development of our literary heritage. Hence high-school and college students of English duplicate most of the leading facts of the history of literature. Likewise, books assigned for outside or home reading are duplicated. Many of the references used in high school are repeated in college.

Many students take four years of English in high school; others only three. One of our junior college teachers in discussing this point says, "My greatest problem as instructor in this course is due to the

fact that my classes are about equally divided between those who *have* and *have not* had the fourth year of English. It would be an easy matter to avoid duplication if the class were homogeneous either way. As it is, much that should be given the three year students is repetition for the four year ones. If it is omitted, the former are more or less at sea. I try to steer between Scylla and Charybdis." Unless homogeneous classification is provided it would seem to be largely waste for the pupil who is going to college to take four years of English.

The crux of the whole matter of literary duplication seems to be in this that both high-school and college teachers wish to give their students the best of a man's work. The high school claims that many students go no further and therefore they must have the best *now* or *not at all*. The college claims that the best and deepest can be only feebly assimilated by such young students. It would seem that some provision should be made for the high-school and college teachers of English to agree to divide the material so as to avoid duplication.

Second, Chemistry. Our teachers of chemistry in junior college report as follows on the overlapping of high-school and college chemistry:

"The overlapping of high-school and college chemistry is not as serious now as it was a few years ago. Much has been done and is being done by such organizations as the 'Committee on Chemical Education' of the American Chemical Society. For example this committee in 1924 at a meeting in Washington did valuable work along this line in accordance with thirty thousand criticisms.

A very recent survey shows that sixty-eight out of eighty public institutions modify the beginning chemistry to accommodate better students who have had high-school chemistry. This report also shows that eighty-three out of one hundred and two private institutions do the same thing. It is certainly safe to say that overlapping is not as serious as it was a short time ago, and also that further progress will be made in eliminating duplication.

The local situation is helped materially by the fact that the universities of Kansas, Missouri, and Illinois all modify the work to take care of the high-school student. These three universities receive the majority of the Kansas City students. There is quite a tendency,

which seems to be growing, not only to modify the courses, but to classify the students on the basis of placement tests. Notably among the larger institutions that do this are the University of Iowa and the University of California.

We at junior college after considerable study and investigation are now handling our beginning students as follows:—The student with no previous training in chemistry takes our Chemistry 1a or 1b. We try to make this course of such a nature that it as nearly as possible brings the student to the place where the high-school student is when he enters. Students with poor high-school preparation are allowed to take this course for four, instead of five, hours credit.

Students entering junior college with high-school chemistry take our chemistry 2a or 2b. Students who have had our chemistry 1a or 1b also take this course. This is a more intensive study of the fundamental theories and laws. The laboratory work is more advanced than that of chemistry 1, and consists of a few inorganic preparations and several experiments stressing quantitative relationships. Students going into medicine, chemical engineering, etc., need more of the basic work in chemistry and we try to supply this in chemistry 2."

From this report it is evident that the teachers of chemistry in both the college and in the high school have realized the waste of time caused by duplicating courses and have provided chemistry 1 for pupils who have not had chemistry in high school and chemistry 2 for pupils who have had chemistry. This prevents duplication for individual pupils but results in the accumulation of an excessive number of college hours in chemistry and continues duplication of courses.

Third, Physics. One of the strong high-school teachers of physics has made the following report:

"I have made a study of three physics texts. One was the general text used in an engineering university. The second was the general text used in Kansas City Junior College. The third was the text used in Westport High School. I have selected for study in all three books the general division, mechanics of heat. The enclosed tabulation sheet includes all the topic headings in each of the books covering mechanics of heat. The lines indicate chapter divisions. My study of this tabulation leads me to make the following observations:

Approximate number of words devoted to study of Heat.

- a. University Text.....44,850
- b. Junior College Text.....44,770
- c. Westport High School Text.....25,800

Number of problems offered.

- a. University Text..... 36
- b. Junior College Text..... 74
- c. Westport High School Text..... 73

Duplication by advanced texts of high-school material.

- a. Principles and Laws..... 100%
- b. Illustrations and Applications..... 85%

Our high-school laboratory work differs more widely from the college work than does the textbook work. The type of apparatus we use and the length of the laboratory period make great precision in most experiments impossible.

We are also working on practical projects that are not duplicated in general college courses. Pupils are given the opportunity to do special work in those phases in which they are especially interested. We are building up a library in which historical and biographical phases of the subject are emphasized.

This teacher verified his report by listing in parallel columns the topics handled in the technical university text, the Kansas City Junior College text, and the high-school text. After showing that much of the work in college physics and high school physics is duplicated he gives a quotation from a college instructor in physics who said, "I have two sons. If they become interested in physics, I shall insist that they take both high-school and college courses. The duplication seems to me to be of value." The report of this teacher indicates that from the standpoint of the textbooks, there is almost 100% duplication in high school and college physics. However, the method of approach and treatment will be quite different in the two institutions.

A professor of physics in one of the large universities of the Middle West says:

"On paper, a first year college course does not seem to be greatly different from a high-school physics course. As a matter of fact, there is a vast difference. The aims, purposes, and methods used are very different, so different that the duplication of work is far less than would seem by a comparison of two textbooks. The difference

of attitude of the teacher is hard to describe, much less to explain. It must be remembered that college physics, from beginning to end, deals almost entirely with concepts, many of which are very difficult. I know of no other subject which has anything like the number of concepts crowded into the same time. Few students can learn all these concepts except by repetition. A certain amount of repetition is very desirable."

From these reports it is quite evident that the teachers of college physics and high-school physics have not made as much progress in the elimination of duplications as have the teachers of chemistry. The situation may be materially improved by organization of college physics 1 for pupils who have not had high-school physics and college physics 2 for pupils who have had high-school physics.

Fourth, Life Sciences. One of our best high-school teachers of the life sciences in discussing the duplication of high-school and college courses in botany, zoology, and biology, says:

"Since a large per cent of college students take one of these subjects without preceding high-school courses, the first courses there are necessarily all duplications of what is *usually* taught in high school."

A study of the situation in the field of life sciences indicates that it parallels exactly the situation in the field of physics. No adequate provision is made in college and university for homogeneous classification of pupils so that those who have had extensive courses in life sciences may go on with advanced courses and not be compelled to waste time duplicating the same materials that they have had in high school.

Fifth, Mechanical Drawing. One of our teachers of mechanical drawing reports as follows:

"I find that there seems to be a complete duplication of high-school mechanical drawing in the universities. I am informed that engineering drafting or mechanical drawing in the universities must begin with the fundamentals since the students come with such a wide variety of preparation. The great importance of this ground work makes it necessary for the higher institutions of learning to disregard high-school drafting and require all to begin at the beginning except per-

haps in a few outstanding cases. Doubtless, the universities require a much higher standard of accuracy, thoroughness, speed, and power to analyze."

Another teacher reports as follows on the conditions as they exist at one of our large universities in the Middle West:

"Four hours credit in mechanical drawing is required of all students of engineering. No pre-requisite is demanded and no credit is given for high-school courses in this subject."

One of the professors in the department of mechanical engineering at one of the large universities states:

"Our first course in mechanical drawing for engineering students is a two hour credit course based upon French's 'Engineering Drawing.' If students come from strong grade 'A' high schools with as much as two years of mechanical drawing with a grade above the average we excuse them from the requirement of this two hour course in engineering drawing. This does not give them two hours of university credit but merely allows them to elect two hours in some other subject instead of drawing. They are not excused from engineering drawing II. For students who have had four years of drawing in high school there is probably the same kind of duplication that there is in courses in history and English where students have had these courses in good high schools."

Thus it is seen that in our best universities four years in mechanical drawing in high school secures exemption from only two hours of engineering drawing. This is certainly an inexcusable situation.

Sixth, Psychology. Students who take psychology in high school receive a half unit of entrance credit. So far as we have been able to learn no college credit is allowed for psychology in any college or university. Furthermore, pupils who have had psychology in high school and those who have not had psychology are classed together in the same psychology class. The first course in college in general psychology duplicates almost one hundred per cent the high school psychology course.

Seventh, Bookkeeping. Many of the universities give an elementary or foundation course in accounting to their freshmen. In

general this course does not differ materially from the bookkeeping which the student had in high school. There is a tendency now at some of these universities to allow pupils who have come from grade "A" high schools with a year or two years in bookkeeping to omit the freshman course in bookkeeping or accounting and begin with the sophomore year. When students who have had two years of bookkeeping in high school are required to take this freshman course it is a useless and wasteful duplication.

Eighth, Modern Languages. The situation in modern languages is quite satisfactory. In most of the colleges and universities of the Middle West students are given credit for their high-school work in modern languages. One year (two semesters of high-school work) in any modern language as French, Spanish, or German is considered by the university as the equivalent of five semester hours of college work. That is, the college or university does in five semester hours the equivalent of the work done in one year in high school. Thus a student who has had four years of French and presents enough college entrance credits to be admitted without counting the credits in French for entrance will be granted twenty hours of college credit in French.

All colleges and universities duplicate the courses in modern languages but the same student is not required to duplicate his work.

Ninth, Mathematics. In mathematics the duplication is excessive. While the college claims more thoroughness and a different method of attack, a study of procedure and results shows but little difference in the work in the two institutions. In our own junior college there are three courses that duplicate high school courses: advanced algebra, college algebra, and trigonometry. Students who take trigonometry in high school are in practically all cases required to take that course again in college or university. Our own junior college has now provided that students who come with grade of "S" or "E" in trigonometry may be excused from that course. Advanced algebra in most colleges is provided for students who have had one year in elementary algebra. This course is a duplication of what is known as algebra III or the third semester of algebra in senior high school. Students may offer the third semester of high-school algebra as an entrance credit, then take advanced algebra in college and secure college credit on practically the same work. Thus the student is given entrance credit

and college credit for the same work. The same thing is true in the case of trigonometry. College algebra should probably not be given in high school although many high schools do give such a course. So far as I know no college or university will give credit for it. As a result the student takes over the same course and receives college credit for the course on which he has had high school credit and college entrance credit.

Tenth, Social Sciences. The courses in social sciences vary greatly in different high schools. As a result students come to college and university with exceedingly varying preparation.

It seems that colleges and universities find it easy to throw all groups of students together in the same classes in freshman and sophomore years. One of our splendid high-school teachers in social science says:

"There is no question in my mind that for the group which had efficient instruction in the senior high school much of these freshman and sophomore courses is largely a repetition or a duplication of their high-school work."

He further says:

"I feel that such individuals may ride through the courses on their previous high-school training and are actually losers in that they are wasting time and probably are forming habits of loafing."

He states further:

"Assuming that the student has had efficient high-school courses in American history, economics, or sociology, he will have an advantage over the student in freshman or sophomore courses in college who has had no previous high school instruction in these subjects. However, if both students continue in the social studies this advantage will become more apparent than real and will decrease as both students advance in the upper years of college and will probably disappear entirely in the graduate school. In other words, the student who had the instruction in high school in the end has had no advantage over the other student if he is made to repeat or duplicate these high-school courses in college. He would have a permanent advantage only if he were allowed to enter advanced courses at once—the advantage or benefit being a gain in time which he might devote to some other related study."

The social science department in college could certainly improve its work materially by following the plan of elementary and advanced courses that is now being used with good results by the chemistry department in many colleges and universities.

In reply to the question, "What advantage is given to the students in college or university who have had two years of world history over the students who have had only one year of world history?", I received this reply:

"It is my opinion that the advantage is negligible if both groups are thrown together in the same freshman and sophomore classes in colleges. The only real advantage the two year group would have would be in being allowed to take up more advanced courses."

In regard to sociology and economics one of our best high-school teachers replies:

"I shall have to say that no advantage is gained in college by taking one semester of sociology or of economics in high school as far as subject matter is concerned. We hope that some advantages may have been gained in attitudes and appreciations, but it is only a hope."

This superficial survey of the duplication and over-lapping by colleges and universities of high-school courses and of the duplication by individual students in these institutions of work that has actually been taken in high school leads to conclusions very similar to those reached by Dr. L. V. Koos and treated at length in his book "The Junior College," published by the University of Minnesota.

The following high-school courses are seldom or never duplicated in college or university:

- First year algebra
- Plane geometry
- General science
- Community civics
- Some of the elementary English courses

It is rather difficult to find eight units or two full years of high-school work that is not duplicated in full or in part in college or university.

The study reveals further that a student who has completed a four year high-school course may enter college or university and make up his program entirely of courses that he has taken in high school, or could have taken in high school. In most colleges or universities he may take courses of this character for something like two years. Among the courses he may take are:

- Beginning French
- Beginning Spanish
- Beginning German
- English composition
- English literature (survey courses)
- Chemistry
- Physics
- Biology
- Psychology
- Economics
- Sociology
- History of civilization
- Cicero
- Virgil
- Trigonometry
- Advanced algebra
- College algebra
- Mechanical drawing
- Bookkeeping
- Etc.

While I have no accurate data it is my firm conviction that in the case of a large number of students, the student actually repeats in college or university from one-half year to a year of the work that he has had in high school. In some cases the repetition is not complete but he is repeating a large percentage of the courses. This process of repeating makes the number of years spent by the student in high school and university excessive.

We have been told many times that the European student is two years in advance of the American student. It has been demonstrated that one year can be saved and is being saved in many communities in the elementary school.

From the facts that have been gathered by Dr. Koos and others it is evident that the last two years of the senior high school and the first two years of college can be reorganized, duplications and overlappings eliminated, and the work accomplished in a satisfactory manner in three years—thus saving another year for the student.

My recommendation is that the Department of Secondary Principals appoint a committee to make a study of duplications and overlappings of courses in colleges and high schools with a view to saving time for students and avoiding the demoralization of habits of study and application now going on in college and university as a result of this duplication.

President James M. Wood of Stephens College of Columbia, Missouri, presented his paper on *Future of the Whole Junior College Movement in its Relation to Secondary Schools*.

FUTURE OF WHOLE JUNIOR COLLEGE MOVEMENT IN ITS RELATION TO SECONDARY SCHOOLS

JAMES M. WOOD,

PRESIDENT, STEPHENS COLLEGE, COLUMBIA, MISSOURI

The past year has been one of rapid crystallization of thought on many phases of the junior-college problem. The institution is being permitted, at last, to wear swaddling clothes of respectability. Its place as a part of the secondary-school system is more definitely assured. The contribution that it is to make in shortening the period of general education is more generally recognized. In spite of these things, however, the basic problem of one year ago remains the same to-day. For that reason I crave permission to repeat a part of my address before the Junior College Division of the Department of Superintendence at the Boston meeting.

There is probably no part of the American educational system that is attracting more attention at the present time than are the secondary schools. The field that a quarter of a century ago was occupied exclusively by the high school is now filled by organizations known as the junior high school, the senior high school and the junior college, nor is it longer possible to define either of these units in terms of years or of curriculum content. A common basis in the discussion of the secondary-school problem seems to be the fact that all of

these units are predicated upon a completion of a six year elementary school course. In some school systems this elementary period is followed by a two year junior high school, leading into a four year senior high school, which in turn leads into a two year junior college. In other places there is a three year junior high school, followed by a three year senior high school, in turn leading into a two year junior college. Again, there is a two year junior high school, a three year senior high school and a two year junior college. In all cases except in the last mentioned, it seems to be the unanimous agreement among school men that the secondary system should cover the eight years of adolescence, extending roughly, from the age of twelve to the age of twenty.

The administrative problem that confronts school men is therefore the wise distribution of time during the eight year period. Shall it be organized into one unit of eight years or shall it be divided into two or more units? If the latter course be pursued the question is immediately raised as to the most efficient unit, both with respect to curriculum organization and to teaching efficiency. Wholly aside from curriculum consideration, school men seem to be fairly agreed upon two propositions; namely, that the eight year period is too long and that the two year period is too short for the building of the student morale essential to efficient work. It is for this reason that the junior high school in so many places has absorbed the freshman year of the senior high school. For exactly the same reason, men who have been working in the junior college are convinced after years of experimentation that the two year unit is not a feasible one and that if the junior college is to live, it must extend its courses, either downward into the field now occupied by the senior high school or upward into the field of the professional schools of the universities. ●

For more than a quarter of a century educators following the leadership of former presidents, Harper of the University of Chicago, James of the University of Illinois, and Jesse of the University of Missouri, have pointed out the fact that the freshman and sophomore courses of the present liberal arts college (now known as the junior college) are purely secondary in character and therefore belong in the secondary field. If this position, which is quite generally accepted, be sound, it would be a mistake for the junior college to extend its curriculum upward into the field that is not legitimately its own. The

only alternative then is for the junior college to absorb the upper courses of the senior high school. If this be done, however, and the senior year of the high school be taken into the junior college curriculum and organized on a junior college basis, another serious situation is created. The senior high school, having given up its freshman course to the junior high school below, and its senior year to the junior college above, becomes within itself, the same two year unit which has proved undesirable in the case of both the junior high school and of the junior college. It would seem, therefore, that the ultimate solution of the secondary-school problem must lie in the establishing of a three or four year unit. In that case the junior high school should absorb not only the freshman year of the senior high school as it already has done, but the sophomore year as well. The junior college, on the other hand, should extend its course downward to include not only the senior but the junior year of the standard four year high-school course with a view to determining whether it will be possible through increased teaching efficiency, reorganization of subject matter and elimination of duplicate courses to complete in each case the four years in three.

This administrative reorganization will establish a six year elementary school as at present, followed by a three or four year junior high school, leading in turn into a three or a four year junior college which leads directly into the professional schools of the university. It will be noted that the junior high school, extending roughly from the ages of twelve to sixteen, covers and permits the organization of subject matter and the adaptation of teaching methods to the needs and interests of early adolescence. The period covered by the junior college unit, extending roughly from the ages of sixteen to twenty, permits the adaptation of the curriculum content and teaching methods to the interests and needs of later adolescence. The longer unit also permits the school system to adapt its curriculum to the abilities of the students. In any case the honor student should be able to complete each of the two units in a period of three years, graduating from the junior college at approximately the age of eighteen, while the inferior group could be given an extended period. Should the four year unit be retained, it is confidently believed that possible reorganization of the curriculum within the junior high school and the junior college will ultimately cause the word "junior" to be eliminated from both.

It is impossible to enumerate the implications involved in this proposal. It is the ambition of practically every father and mother that the son or daughter should have the practical and cultural advantages of a college education. Under the existing educational machinery, this has been reserved almost exclusively for an intellectual or a social aristocracy. Under the proposed reorganization, the liberal arts college itself would open its doors in every community now able to maintain a junior college. Through systems of consolidation, it would be brought to the doors of practically every community.

It was a belief in the feasibility of such a reorganization that caused the Board of Curators of Stephens College to begin and the North Central Association of Colleges and Secondary Schools to sponsor an experiment in the field of the proposed four year junior college.

Stephens College was granted a period of five years within which to try the experiment. The committee appointed by the North Central Association to supervise the experiment is composed of Dr. Charles H. Judd of the University of Chicago, Dr. L. V. Koos of the University of Minnesota and Dr. George F. Zook, President of the University of Akron and former Commissioner of Education under the federal government. This committee reports annually to the North Central Association of Colleges and Secondary Schools on the development of the experiment. Their findings are thus made available for the information not only of other men working in the field of the junior college, but also for superintendents and principals of high schools as well.

The demand for such reorganization of curriculum material and educational objectives and methods is responsible for the rapid development of both the junior high school and the junior college. It is impossible to think of them separately because one is the vitalizing unit in the lower and the other in the upper secondary field. These institutions possess two distinct advantages over their respective senior institutions. They are free from the traditions that hamper the free development of the senior high school and of the senior college. Unlike the latter institutions, they are the direct outgrowth of community needs and are not yet dominated by so-called intellectual standards. They represent a conscious and whole-hearted attempt to adjust the curriculum to the needs of the individual student. Since

this is true, it is evident that those institutions should not be permitted to develop along traditional lines.

The Stephens College experiment with the four year junior college is based upon the following assumptions:

1. That the essential elements of the work now done in the junior high school, the senior high school, and the junior college should be completed by the end of the twelfth grade. Should a longer period for general education be required, it is quite evident that the remaining two years should cover the upper division courses of the liberal arts college and should lead definitely to the baccalaureate degree.

2. That the junior college, however defined, is an integral part of the secondary-school system.

3. That the work of the junior college should be organized upon the collegiate as distinguished from the high-school level, just as the work now attempted in the junior high school should be organized upon a secondary as distinguished from an elementary school level.

4. That these changes may be brought about through increased teaching efficiency, through the elimination of duplicate courses in college and secondary curriculums, through a thorough reorganization of curriculum content making it more definitely functional.

5. That these reforms may result not only in the saving of two years of time for the student and two years of expense for the community but that this may be done without serious loss.

The specific nature of the experiment authorized by the North Central Association of Colleges and Secondary Schools is indicated by the following chart.

The Four Year Junior College

Senior	XY	E	E	E	E	E
Junior	XY	Y	E	E	E	E
Sophomore	XY	Y	Y	E	E	E
Freshman	AY	BY	CY	D	E	E

- A, B and C—General Orientation Courses—Science, Social
and Political Science, Humanities
- D—Vocational Orientation Course
- E—Elective and Terminal Courses
- Y—Required Courses
- X—Pre-requisite Courses

It will be observed that four out of a possible five subjects offered in the freshman year are designated as orientation courses. The purpose of this organization is to give the student at the beginning of his college course a comprehensive view of the entire field of human knowledge and at the same time to give him a mastery of the particular set of tools that he may need to use in his own field of endeavor. The completion of the courses as outlined brings the student not only to the door of the professional school but it also provides him with a cultural and informational background needed by the ordinary citizen in the solution of his life problems and gives him the training needed for the semi-skilled trades and professions. A more detailed study of the proposed curriculum will probably make its ultimate objectives more intelligible.

FRESHMAN YEAR

I. Science

This is a comprehensive view of the entire field of science in its relationship to human progress and human welfare. It is neither geography nor geology, botany nor zoology, physics nor chemistry, but rather an overview of them all. It is designed to render more intelligible the work that a student may later undertake in any specific field of science.

II. Social and Political Science

This course is designed to give the student an overview of the inter-relationships of human beings and their activities, both constructive and destructive, which history has recorded as the results of such inter-relationships. It serves definitely as a background for a later intensive study of the records of family, community, and racial life, together with the institutions that have developed as a direct result of the operation of social and economic forces.

III. *Humanities*

This term is used to describe those fields of experience which represent the fullest expression of human emotions; such as literature including drama; music, including poetry; art, including sculpture painting, architecture, and forms of applied art; religion, including philosophy and ethics.

It is not the purpose of this course to enter intensively into any one field of culture, but rather through an overview of them all to give a broad cultural background by means of which a student will be able, in later courses, to evaluate specific fields of knowledge.

IV. *Vocations*

The primary function of this course is to render the choice of a profession or of a vocation more intelligible. It is designed to acquaint the student not only with the nature of the professions, trades and industries, but also with the possibilities for service in the various fields, the peculiar personal qualities needed for the successful handling of problems, and the course of study necessary for its pursuit.

Suppose, for instance, that medicine has been selected as one of the major professions to which attention is to be directed. The student is first made aware of its position among the learned professions. He is given a comprehensive view of its history and its contributions to human welfare and happiness. His attention is directed to each of its major fields for specialization, the qualities needed for success, the peculiar courses of study to be pursued, the rewards both social and economic that may reasonably be expected.

A study as complete as may be is then made as to the present and probable immediate future supply and demand in that particular field. Such a study may show, for instance, a surplus in the field of surgery but a serious deficiency in general practitioners.

Before completing his course, the student is encouraged to select from each major field those professions for which he seems to possess most aptitude, and from those the one or ones that seem to offer greatest opportunities. This latter choice determines very largely the type of course that he is to pursue during the remaining three years.

This course is offered only in the freshman year.

V. *Terminal Subjects*

Whatever field a student may elect for his major or for his minor work, the mastery of certain subjects that will be vital for practical or for economic efficiency in that particular field is necessary. Since these subjects are merely tools in specific fields of learning they are designated as terminal subjects. In this group would fall applied mathematics, a reading knowledge of a foreign language, English composition, shorthand, typewriting, accounting, the technique of applied music, semi and pre-professional courses having as their objective—wholly or in part—the economic independence of the student.

SOPHOMORE YEAR

It will be noted that the student is required during the sophomore year to elect courses from each of the three major fields covered by the orientation courses of his freshman year. These selections are determined by the student's natural interests and ability and are designed to make possible the selection of both a major and a minor field of work at the close of the sophomore year. Each department is required to introduce the student to a specific field of knowledge through a survey unit in that field; for instance, if a student elects chemistry as his subject in the field of science he is given a survey course covering this entire field and introducing him not only to the fundamental forces operating in the field of chemistry, but likewise to the contribution chemistry has made to civilization. This survey unit may cover a few days or a few weeks, at the beginning of, or at any point within the course, but in any case its immediate objective is to render more intelligible the work of the student in the class room and in the laboratory. A similar course with the same objectives introduces and is an integral part of each basic subject in the curriculum.

In the field of the terminal subjects the objective is a mastery of the particular tool needed. A qualitative and quantitative standard is maintained, but without the usual artificial time measurement; for instance, the objective in the mastery of a foreign language as a terminal subject is an easy reading knowledge of that language. The normal time limit for that mastery is two years. The objective in the course, however, is not two years, but the mastery of a reading knowledge of the language, whether it be done in three months or whether it require three years.

JUNIOR YEAR

At the beginning of his junior year the student selects both his major and his minor fields. The former is based upon definite prerequisites, the latter is free electives within the field of his minor.

SENIOR YEAR

The only general requirement in the senior year is the continuation of work in the student's major field which is designed not only to lead to an intelligent understanding of at least one field of human effort, but also to prepare the student for more intelligent work in a professional school.

No attempt has yet been made to evaluate these required courses in terms of hours. It is entirely probable that some of the work indicated, particularly the orientation courses of the freshman year, should be offered in the lower secondary field. In any case ample time is afforded in the above organization for the mastery of the technique required in some one semi-professional field.

The junior, or liberal arts college, should mark the close of the period of general education. Leaving its doors, the student should possess those elements of culture needed for personal satisfaction as well as for intelligent participation in home and community life. He should be prepared for further study in the graduate or professional school of his choice. Through the mastery of its basic techniques, he should have become economically independent in some special field, or fields, of his own selection. Upon the completion of this course, the student should receive the baccalaureate degree.

It will be quite evident that the administrative objective of this experiment is the completion of the present junior college in twelve and the liberal arts college in fourteen years, the administrative prerequisite being a four year secondary resting upon a six year elementary unit.

NATIONAL COUNCIL MEETING AT BOSTON

MEETING OF THE NATIONAL COUNCIL OF THE NATIONAL HONOR
SOCIETY AT HOTEL STATLER, BOSTON, MASSACHUSETTS,
WEDNESDAY, FEBRUARY 29, 1928

The meeting of the National Council at 5:15 P.M. was called to order by President Rynearson. Present: members Brooks, Keyes, McDaniel, Rynearson, Smith and Church. Absent: members Downey, Prunty, and Wing.

A delegation of four principals from the high schools of Massachusetts presented proposals for amendment of the constitution of the National Honor Society.

On motion of member Brooks, member Rynearson was elected as president, and member Church as secretary. Carried.

Members Brooks and Prunty were appointed on a committee to consider means of motivating to higher scholarship the pupils of the earlier years of the high-school.

On motion of member McDaniel the Council adjourned.

NATIONAL COUNCIL MEETINGS AT CLEVELAND

MINUTES OF THE MEETING OF THE NATIONAL COUNCIL OF THE
NATIONAL HONOR SOCIETY, HOTEL CLEVELAND, CLEVELAND,
OHIO, SUNDAY, FEBRUARY 24, 1929

The meeting of the National Council at 5:30 P.M., was called to order by President Rynearson. Present: members Brooks, McDaniel, Prunty, Rynearson, and Church. Absent: members Downey, Keyes, Smith, and Wing.

The minutes of the meetings of February 26, and of February 29, 1928, were read and approved.

The tabulation of the questionnaire sent to the chapters was as follows:

1. Do you favor admitting sophomores at the end of their fourth semester? Replies, 249: Yes, 11%; No, 89%.

2. Do you favor admitting juniors at the end of their fifth semester? Replies, 239: Yes, 34%; No, 66%.

3. Do you favor admitting more than 15% of the senior class? Replies, 230: Yes, 15%; No, 85%.

4. a. Does your faculty committee give a numerical ranking (1, 2, 3, 4, & 5) in each of the qualities of service, character, and leadership? Replies, 214: Yes, 37%; No, 63%.

b. Do you determine the numerical ranking received by each student from each faculty member on the various qualities to ascertain the ultimate and total rank of the candidate? Replies, 173: Yes, 51%; No, 49%.

c. Would you favor the above ranking plan? Replies, 173: Yes, 72%; No, 28%.

5. Do you believe pupils who rank in the upper third should be admitted to candidacy? Replies, 228: Yes, 61%; No, 39%.

6. Would you favor admitting all seniors to the Society who rank in the upper 15% and whose various qualities have no negative reports or disapproval? Replies, 235: Yes, 28%; No, 72%.

7. Would you like to have a junior honor society proposed by the National Council? Replies, 202: Yes, 71%; No, 29%.

Member Prunty moved that the above tabulation be sent to Frank P. Morse, Boston, Massachusetts. Carried.

Moved by member Brooks that member Prunty present to the Department the tentative constitution of a junior honor society. Carried.

Moved by member Brooks that a wall placque be prepared for sale to chapters. Carried.

The terms of the following members of the National Council expire: Brooks, Eaton, and Wing. The succeeding were nominated: L. W. Brooks, A. M. Seybold, William E. Wing, H. V. Kepner, G. A. F. Hay, W. H. Nichols, Wylie Parker, and V. K. Froula.

Member McDaniel moved to adjourn to meet Tuesday at 5 P.M. Carried.

Meeting of National Council of the National Honor Society on Tuesday, February 26, 1929, in Hotel Cleveland at 5 P.M.

Present: Members Brooks, McDaniel, Prunty, Ryneerson, and Church. Absent: Keyes, Downey, Eaton, and Wing.

Member Prunty presented a second draft of a constitution for a Junior National Honor Society. This tentative draft was accepted by the Council on motion of member Brooks.

Member McDaniel moved to adjourn to meet at Hotel Winton at 10 A.M. on Thursday, February 28.

Meeting of the National Council of the National Honor Society on Thursday, February 28, 1929, at Hotel Winton, at 10:30 A.M.

Present: members Kepner, McDaniel, Prunty, Ryneerson, Seybold, and Church. Absent: members Brooks, Downey, Keyes, and Wing.

On unanimous vote member Ryneerson was re-elected President of the National Council for the ensuing year.

On motion of member Prunty the Council adjourned.

CONSTITUTION OF THE DEPARTMENT OF SECONDARY-SCHOOL PRINCIPALS

ARTICLE I—NAME

The name of this Department shall be the Department of Secondary-School Principals of the National Education Association.

ARTICLE II—AIM

The aim of this Department is to promote the interests of secondary education in America by giving a special consideration to the problems that arise in connection with the administration of secondary schools.

ARTICLE III—MEMBERSHIP

SECTION 1—Membership in the Department of Secondary-School Principals shall consist of Active and Associate.

SECTION 2—All Principals of Secondary Schools, namely Junior High Schools, Senior High Schools, and Junior Colleges, their administrative and executive assistants, Heads of Schools of Education in Normal Schools, Colleges, and Universities, together with Professors teaching Secondary Education therein and Secondary-School Representatives of State Education Departments, who are also members of the N. E. A., shall be eligible to Active Membership upon payment to the Secretary of the annual fee of \$2.00. Active members shall have the privilege of voting.

SECTION 3—Members of State Organizations of Secondary-School Principals shall be eligible to Associate Membership of the Department of Secondary-School Principals, as a group, by the payment to the Secretary of the annual fee of \$1.00.*

SECTION 4—All others engaged in Secondary Education, who are members of the National Education Association, shall be eligible to Associate Membership upon payment to the Secretary, of the annual fee of \$1.00.

SECTION 5—All members both Active and Associate shall receive all publications of the Department.

*Note: This clause shall become inoperative as soon as the respective state organizations can work out provisions for enlisting their membership as active members of this department.

ARTICLE IV—OFFICERS

SECTION 1—Officers of this Department shall be a President, First Vice-President, Second Vice-President, and Executive Secretary, who shall be the executive officer of the Executive Committee.

SECTION 2—The Executive Committee shall consist of these officers, the retiring President, and two members of the Department. The Executive Committee shall be representative of Junior High Schools, Senior High Schools and Junior Colleges.

ARTICLE V—ELECTION OF OFFICERS

SECTION 1—At the first session of the annual mid-winter meeting a nominating committee of nine shall be elected by ballot from a list of at least eighteen members nominated from the floor. This committee shall elect a Chairman, select nominees for all offices except the Executive Secretary, and report at the regular business session of the mid-winter meeting. After the report of the nominating committee the President of the Department shall call for other nominations for the different offices and for the membership on the Executive Committee.

SECTION 2—The Executive Secretary shall be selected by the Executive Committee for an indefinite period.

ARTICLE VI—MEETINGS

SECTION 1—The Department of Secondary-School Principals shall hold two meetings yearly. The regular annual meeting to be held at the time and place of the meetings of the Department of Superintendence of the National Education Association, unless arranged for otherwise by the Executive Committee of the National Education Association.

SECTION 2—The second meeting of the Department shall be held at the time and place of the annual summer meeting of the National Education Association.

ARTICLE VII—AMENDMENTS

The Constitution may be amended by a majority vote of those present and voting at the annual mid-winter meeting. A proposed amendment must be submitted in writing at the preceding annual meeting, or must be submitted in printed form to all members of the Department thirty days before the annual meeting. In case the latter method is used, such amendment must receive the approval of the Executive Committee before it can be printed and sent to the members of the Department.

ACCEPTED

