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CO-OPERATION BETWEEN TRAINING SCHOOL AND SUBJECT-MATTER INSTRUCTORS

Introduction

THE outstanding problem confronting public education today is the development of efficient teachers for the public schools of our country. Because of its importance, this problem should offer the greatest challenge to our most competent educational workers. Schools can be efficient only in proportion as their teachers are efficient. Teachers can be efficient only in so far as they are prepared for their vocation.

Since a large proportion of public school teachers now receive preparation for their work in teachers' colleges and normal schools, educational leaders should study these same institutions very carefully in order to determine the causes of the inefficiency of their product. As the result of such a study, intelligent suggestions should be made for improving the preparation of teachers in these schools.

The purpose of this paper is to consider only one factor (with its implications) which, if allowed to function, it is thought would help to improve the efficiency of the product of teacher-training institutions. This factor is co-operation between the training-school staff and the subject-matter[1] instructors of teachers' colleges and normal schools.

The following discussion is based on the assumption that co-operation among instructors does not consist merely in "making" opportunities for teachers of various departments to work together. Instead, it is assumed that all faculty members concerned should become conscious of certain relationships which already exist by virtue of the very aims and purposes of teacher-training institutions. It is further assumed that these intrinsic relationships should function in determining the policies and practices governing co-operation.

In attempting a discussion of co-operation between the training school and subject-matter teachers, it seemed advisable (1) to consider some of the reasons for lack of co-operation between subject-matter instructors and the training-school staff; (2) to set forth some of the conditioning factors which tend to influence professional trends and co-operative activities; and, finally, (3) to make certain constructive proposals, the carrying out of which will help to bring about a high degree of co-operation between the training school and subject-matter instructors of teacher-training institutions.

I

SOME REASONS FOR LACK OF CO-OPERATION BETWEEN ACADEMIC INSTRUCTORS AND THE TRAINING SCHOOL

More than a century has passed since the movement for the training of teachers was first got under way in this country. Many changes have taken place in teacher-training institutions during the process of evolution from "seminaries" to "normal schools" and on into "teachers' colleges." It is not surprising that all kinds of attitudes, specializations and differences of emphasis should crop out, which have hindered rather than aided co-operation among various instructors of these schools. Because such institutions are off-shoots of academic schools, they quite naturally carry with them many academic traditions and heritages.[2] Some of these traditional influences, together with other factors which have developed with the growth of teacher-training institutions, are decided hindrances to co-operation between academic instructors and the training school.

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[1] Throughout this paper the term "subject-matter" as applied to teachers, is used to include teachers of educational classes as well as academic courses.

Academic Attitude. Foremost among the reasons for lack of co-operation between academic instructors and the training-school staff is the attitude of the academic instructor. He is interested in subject-matter for its own sake, as is evidenced by the following quotation from Dean James E. Russell:

> "The academically-minded teacher revels in his own subject; he classifies, systematizes, expands, and magnifies it; he has such implicit faith in its educational efficacy that he believes no education complete without it; scholarship is his ideal, and if he be a good teacher, his students are swept along by his enthusiasm. Such teachers are a blessing in an academic institution, but they make trouble in a professional school. Not that scholarship is not wanted in a professional school, but it is scholarship based on knowledge selected and evaluated in terms of professional needs."[3]

Randolph, in emphasizing the contrast between the academic and the professional viewpoints, quotes the following:

> "He who learns that he may know, and he who learns that he may teach are standing in quite different mental attitudes."[4]

It is just this difference that exists between the academically-minded instructor and the professionally-minded teacher. Quite frequently the former has never spent a day in the elementary school since he was a pupil there. He knows nothing of its problems and does not care to know them. He is unable to appreciate the work done by training teachers even when they are well prepared for their work. He is interested in knowledge for its own sake, and not for its contribution to the development of teachers. He sees no need for working with other instructors. He knows his subject and needs no assistance from other instructors, so he thinks. This academically-minded type of instructor is forgetting the aim of the institution he is serving. Perhaps it would be more accurate to say, he is so wrapped up in subject-matter that he has never really become conscious of the meaning of the aim and function of the institution in which he works. The singleness of purpose which should guide the policies of the institution—namely the development of efficient teachers for the public schools of the United States—has not become a controlling idea in his teaching. So long as this academic attitude is held by teachers of subject-matter, just so long will co-operation between them and the training school be lacking.

Training School Regarded Inferior by Subject-Matter Teachers

A false conception regarding the status of the various groups of instructors in the teacher-training institutions is another factor negative to co-operation. This is evident from the condescension shown by subject-matter teachers when attempts are made to get them to work with the training school. This attitude may be derived from the fact that although there was a training school in connection with the first normal school at Lexington, Massachusetts, training schools in general came as an afterthought about fifty years[5] following the establishment of normal schools proper. The training school is therefore deemed inferior by unthinking subject-matter teachers and far beneath their range of interest. They feel that any connection they may have with the training schools means a condescension on their part. There can be no co-operation on such a basis. Academically-minded instructors need to be awakened to the fact that the training school is to continue, and to make effective the training started by college courses. It is, in fact, a testing laboratory for their own work. Only to the extent to which subject-matter instructors identify themselves with the training school will the subject-matter, principles and theory taught by them find application in the practical aspects of the training-school classroom.

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[2] Russell, James E.—Report of the Dean, *Teachers College Bulletin,* November, 1927—p. 10.

[3] Russell, James E.—Report of the Dean, *Teachers College Bulletin,* November, 1927—p. 10.

[4] Proceedings N. E. A., 1895, p. 241, quoted from Randolph, E. D., *The Professional Treatment of Subject-Matter*—p. 88.

[5] Vanderslice, H. R.—The Correlation of the Subject-Matter and Theory Department of Practice Teaching.

Inferior Housing and Equipment of Training School. It may seem trivial to mention the location and equipment of the training school as a cusative factor in lack of co-operation between the training school and subject-matter instructors. However, quite often the very location and equipment of the training school signify the unimportant place this school holds. Sometimes the training school is found in the basement of a building which is attractive and well-kept from the first floor up. Sometimes it is found in some out-of-the-way corner beyond the power-house, in an old frame building which served as a dormitory in earlier days. Altogether too infrequently is it found in an attractive, well-kept building, which is the pride of the whole institution. The same attitude is often reflected in the teaching equipment of the training school. It is not always true, but how often one does find the most "dilapidated" chairs, the most "antique" desks, and the most "tattered" maps of the whole institution are relegated to the "use" of the training school. In recent years much has been said about the training school's being the "heart of the teacher-training institution." One could ask,—"Does it not follow that the training school deserves a central location and the best of equipment in order that it may function effectively in a co-operative sense?"

Qualifications of Training School Teachers. Not the least of the reasons why the training-school teachers and subject-matter instructors have not worked on a co-operative basis is to be found in the training-school teachers. A careful study of the accompanying data (though they are by no means final), will reveal the painful fact that training teachers are not as well prepared for their work as are theory, English, language, mathematics, social science, and science instructors. The training teacher's preparation is more nearly comparable to that of teachers of art and music. They do not even rank up to the average for all departments in terms of degrees held. According to Mr. West's study[6] 80 per cent. of the training teachers in the United States have less training than is required to teach in an accerdited high school. And yet is not the training teacher's position of more importance, and does it not require more skill and more technical training than that of a high school teacher? The training teacher's academic preparation should be as thorough (if not more so) as that of our best public school teachers, and her professional training should be much more thorough. The National Association of Directors of Student Teaching and the National Education Association Committee on accrediting and classification of teachers colleges recommend the equivalent of the M. A. degree in quantity, and special preparation for critic work, plus successful teaching experience in the public schools. Results show that 81 per cent. of the training teachers of the United States fall below this requirement, not considering successful experience and special preparation.

"The strategic point in teacher training is in personal conferences, and yet teacher training institutions in the United States are using in these personal conferences, as models for teachers of

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[6] West, Joe H.—The Status and Training of Critic Teachers; *Educational Administration and Supervision;* November, 1927—pp. 563-67

America, as personal advisers in the art of teaching, their most poorly trained group."[7]

Low Salaries Paid Training Teachers. This lack of preparation on the part of training teachers is closely associated with another factor which has hindered co-operation between subject-matter instructors and the training school staff. This factor is that of the low salaries paid to training teachers as compared with those of subject-matter instructors. Here again Mr. West[8] offers some interesting though deplorable data. In a study of 102 teacher-training institutions, he found that 52, or 51 per cent. of these schools pay their training teachers less than their academic instructors. Forty-seven per cent. of these same 52 schools pay training teachers from $100 to $1,300 less than their other teachers, *i. e.,* from five per cent. to 50 per cent., or on an average of $492. or 25 per cent. less. Forty-eight, or 47 per cent., pay the same, and two or two percent. pay more. Equally well qualified teachers cannot be expected to serve as training teachers rather than as academic teachers when in 51 cases out of 100 they will receive 25 per cent. less pay for such services, and will have only two chances in 100 to receive more. Thus it is readily seen that the lower salaries paid training teachers are a double hindrance to co-operation. They cause these teachers to be regarded as inferior by subject-matter teachers, and they make for the extremely short tenure of training-school positions. Mr. West found that the median for teacher-training tenure is 2.4 years, and that only twelve per cent. of the training teachers held such positions for more than seven years. Co-operation, to be effective, cannot be based on an inferiority-superiority relation. It requires more than 2.4 years to become a specialist in any particular field.

In spite of the inferior position which the above data indicate training teachers hold, Dr. Bagley seems rather hopeful in regard to the equalization of professional rank of teachers, as evinced by the following comment:

> "The University study of education," he says, "has played a most important part in integrating the teaching profession. The lower grades have been regarded as the testing ground for the immature and inexperienced teachers, the permanent abode of the weak and the indolent, and the final resting place of the old and decrepit. Today there is a growing conviction that no phase or field of teaching can lay valid claim to being more difficult or more important than any other phase or field. Discriminations and distinctions as to salaries are breaking down, as for example in the gradual extension of the single-salary schedule which does away with all distinctions except those that are based upon training, experience and meritorious service. . . . One of the striking characteristics of this and other phases of our professional development has been the clear-cut tendency toward a thorough-going democracy. Not only are the distinctions between the elementary school service and the high school service being obliterated, but the equally unfortunate distinction between the classroom teacher and the executive and supervising officials are being minimized. In our professional organizations, as in our classes in education, all the workers in our field can meet on a common footing."[9]

Not until such relations as these have permeated teacher-training institutions can co-operation function between training-school and subject-matter instructors.

The Teaching Load a Hindrance to Co-operation. Often both subject-matter and training-school teachers are forced to carry such heavy teaching loads that, even if there were a willingness on the part of both groups to co-operate, the situation makes it impossible. This is a matter which the president of the school, together with the director of teacher training should study, and make serious efforts to adjust in terms of recent recommendations of a 15 or a 16-hour teaching standard.[10] If such a standard holds for one group of instructors, should it be uniform throughout the school?

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[7] McMullen, Lynn B.—*The Service Load in Teacher Training Institutions of the United States*—p. 94.

[8] West, Joe H.—The Status and Training of Critic Teachers.

[9] Bagley, W. C.—The Profession of Teaching in the United States. A Lecture given at Teachers College, Winter of 1928.

[10] Alexander, Thomas—*Survey of the Louisiana State Normal Schools*—p. 102.

ACADEMIC PREPARATION OF TEACHERS IN NORMAL SCHOOLS AND TEACHERS COLLEGE IN THE UNITED STATES

Catalog Study (1)	Number Considered	*Per Cent. Holding Each Type of Degree*			
Departments		*No Degree*	*B.S. B.A.*	*M.S. M.A.*	*Ph.D. D.Ed.*
Art	183	56.28	31.69	16.03	0.0
Commerce	113	31.86	50.44	17.70	0.0
Education (Theory)	608	9.05	25.66	52.30	12.99
Education (Critic)	247	47.23	30.80	13.15	.80
English	586	10.07	30.03	55.97	3.93
Home Economics	196	15.31	49.49	35.20	0.0
Languages	235	5.53	32.76	52.34	9.36
Manual Arts	117	51.28	37.60	11.12	0.0
Mathematics	207	9.66	35.74	51.68	2.92
Music	332	63.22	32.22	4.56	0.0
Physical Ed.	319	30.09	57.05	12.22	.62
Science	537	3.72	27.56	59.59	9.12
Social Sciences	456	5.48	26.53	60.96	7.01
Totals	5136	25.62	34.68	35.36	4.34
McMullen's Study (2)					
Education (Critic)	348	36.0	45.0	18.0	1.0
Total, all Departments	1943	20.7	41.0	33.2	5.1
West's Study (3)					
Education (Critic)	1250	30.	51.0	33.2	.32
Hendrick's Study (4)					
1924	2077	21	37	34	8
1925	1852	10	50	32	7
1926	2478	19	39	36	6
1927	2455	10	40	43	7

(1) Prepared by class in Education 228 M. E. T. C., Spring 1928. The data are taken from 1926-27 or 1927-8 catalogs of 135 institutions in 36 states; 68 of the schools are teachers' colleges and 67 are normal schools. Several of the institutions included are for Negroes.

(2) McMullen, L. B.—*Service Load in Teacher-Training Institutions,* p. 34. (Represents conditions during the year 1924-27.) Teachers College Bureau of Publications.

(3) West, Joe H.—The Status and Training of Critic Teachers; *Educational Administration and Supervision;* November, 1927, pp. 563-67.

(4) Hendricks, E. L.; paper presented to the American Association of Teachers Colleges, Boston, 1928.

Again, is there a difference in type of work which should vary the standard? Such questions will bear study. The conclusions of such studies, if put into practice might influence the degree of co-operation between the training school, and subject-matter instructors.

Lack of Administrative Direction to Professional Ends. The administration of teachers' colleges and normal schools must bear part of the responsibility for lack of co-operation, from another point of view. For financial reasons, and in a spirit of rivalry, administrators of teacher-training schools try to compete with liberal arts colleges. In an effort to secure large enrollments of students, many purely academic courses are offered; loose organization of courses is permitted; and an appreciation of the important part teacher-training schools play, or rather, should play in the professional training of teachers, is lacking. Quite the reverse should be true. If such schools are to send out successful teachers, administrators should see to it that every course offered in a teacher-training school has a direct bearing on the preparation of teachers. Such action on the part of administrators will do much toward encouraging the functioning of co-operation among instructors of subject-matter courses and the training school.

II

CONDITIONING FACTORS WHICH TEND TO INFLUENCE PROFESSIONAL TRENDS AND CO-OPERATIVE ACTIVITIES

The Aim is Fundamental. An examination of 147 normal school and teachers' college catalogs shows that the primary aim of such institutions is the training of teachers for the public schools of the state. In a large majority of cases teacher training is given as the sole aim of such institutions. Only rarely does one find secondary comments as that of Sul Ross State Teachers College, Alpine, Texas:

> "others are permitted for purposes of general education, or for preparation for other professions";

or, that of South Texas State Teachers College, Kingsville, Texas, which—

> "offers students above high school immaturity an opportunity to find themselves, or to prepare for other professions."

The catalog of Concord State Normal of Athens, West Virginia, states the main purpose of the school as that of teacher-training, but adds this interesting statement:

> "If any course offered for the training of a teacher happens to meet the needs of any who are not expecting to teach, and they wish to enter said course, they may do so, but no course will be offered just to accommodate students not expecting to teach."

It is interesting to note that the aim of teacher-training institutions has not always been so definitely limited to that of training teachers as the above study of current catalogs indicates. "An Act to Establish a State Normal School" at Ypsilanti, Michigan, in 1849 reads:

> "Be it enacted by the Senate and House of Representatives of the State of Michigan, That a State Normal School be established, the exclusive purpose of which shall be the instruction of persons both male and female, in the art of teaching and in all the various branches that pertain to a good common school education, also to give instruction in the mechanic arts, and in the arts of husbandry and agricultural chemistry, in the fundamental laws of the United States and in what regards the rights and duties of citizens."[11]

A revision as stated in the Act of 1889 narrows the scope of training as follows:

> "The purpose of the normal school shall be the instruction of persons in the art of teaching and in all the various branches pertaining to the public schools of the State of Michigan."[12]

The current catalog is even more specific in its aims.

No doubt, research would bring out even more interesting facts in regard to the original and the present aims of many professional schools. For practically all of the older professional schools are offshoots of liberal arts colleges and as such have been greatly influenced by these older academic institutions—quite frequently to the detriment of the professional schools. This is particularly true of teacher-training institutions, which have suffered severely from too academic curricula.

Vocational Purpose of Teacher-Training Institutions. Professional schools through their aims are vocational in nature—vocational of the highest type, to be sure. For this reason their curricula should be in terms of the specific vocations for which they are supposed to prepare. Dean James E. Russell says:

> "The only guide in the professional school is the needs of the practitioner. The minimum standard is the preparation that best fits the novice to take the next step on leaving school. . . . The one inflexible requirement is that what is needed in practice must be taught. That school does best which fits its products to take the successive steps in their professional careers in confident, intelligent and skillful fashion. . . . A professional school is expected to develop special knowledge, attitudes, and skills in its students."[13]

Professional training is the process whereby the individual is fitted for the job. The objectives of a professional school are therefore vocational in character.

Dean Russell holds that:

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[11] Moehlman, A. B.—*A Summary of the Needs of the Michigan State Normal School,* June, 1922—p. 23.

[12] *Ibid*—p. 24.

[13] Russell, James E.—Report of the Dean, *Teachers College Bulletin,* November, 1927—pp. 10, 13.

> "Professional education is vocational education raised to the highest power. . . . The professional school is at best only one means of providing what is needed by the professional worker. It is a short cut to an objective taken under guides who know where they are going and how to avoid the pitfalls that beset the path of the lone traveller. . . All that the novice needs in his preparation is already in the possession of some master or can be found in print. It is the business of the professional school to help him on the way that the masters have trod, to give him as much of the master's knowledge as he can learn in the time at his disposal, to imbue him with their ideals, to put him in the way of acquiring their skill, and, if possible, to make him self-reliant in coping with new conditions, and self-directing in the advancement of his profession."[14]

Teacher-training institutions, through their primary aim, as expressed in their catalogs, are at once vocational in nature; and failure to consider them as such is

> "certain to be attended with disastrous consequences to their efficiency in the development of teaching skill."[15]

If teacher-training institutions are vocational in nature, then they ought to be conducted as such. What has been said in the preceding paragraphs regarding professional education in general, applies specifically to teacher-training institutions.

> "The task of professional schools for teachers is to take young, inexperienced men and women and give to them the knowledge, skill, habits, ideals and attitudes of mind that will enable them to go into the public schools and to teach the course that is laid down by the state, and teach it with skill and effectiveness. And even more important, it is the function of these institutions to develop in these young men and women those bases of personality and character that will enable them to go out into the public schools of the state and develop character in the children of these schools. . . . Just how these purposes are to be attained is a perplexing problem. A young man or woman wishes to be trained to be a teacher for the intermediate grades or to be a teacher of high school Latin. The professional work must not only look after the spiritual and moral welfare and growth of this individual; it must also see to it that the prospective teacher master the subject-matter of the field in which he will work, as well as achieve skill in imparting knowledge to children."[16]

A realization of the responsibilities of professional schools preparing individuals for the business of teaching, naturally leads to a consideration of just what must be done to fit the individual for his work. Whatever is included in the curriculum of a teachers' college must contribute to the preparation of teachers in terms of the purposes just quoted. This means that students must be given a threefold training, consisting of facts and subject-matter; theories and methods; observation, participation, and practice teaching. This training must be in such a manner and to such a degree that these same students can go into the classroom and carry on satisfactory procedure.

Such an assumption as the foregoing makes it necessary that the student be equipped with (1) subject-matter; (2) principles, habits, ideals, and attitudes; and (3) skills—all selected in terms of certain definite "vocational outcomes."[17] For—

> "there can be no satisfactory results of educational practice until sufficiently definite outcomes have been chosen in terms of vocational objectives to guide technical procedure."[18]

"Vocational outcomes" must be the bases for the selection of all three of the foregoing units with which the student must be equipped.

A Study of Curriculum Construction is Essential. Vocational ends sought, as described above, have made necessary a study of curriculum construction. Typical courses must be offered. The curriculum must provide for (1) courses in which students may get subject-matter, and theories and principles of education; (2) a training school where theories and principles learned in class may be made meaningful through observation and participation, and where skill may be developed in the use of these theories and principles in connection with the subject-matter gained in classes; and (3) opportunities for developing habits, ideals, and attitudes of mind necessary for success in teaching.

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[14] Russell, James E.—*Ibid*—pp. 10, 13.

[15] Report of the Teacher Training Committee, New York State Education, November, 1928—p. 212.

[16] Alexander, Thomas—*Survey of the Louisiana State Normal Schools,* 1924—pp. 119-120.

[17] Root, Rosamund—The Outcomes of Supervised Student Teaching; *Supervisors of Student Teaching,* February 22-23, 1926—pp. 68-76.

[18] Root, Rosamund—*Ibid.*

In addition to there being general aims and purposes for the whole school, which have already been stated in terms of vocational outcomes desired, there must be specific aims and purposes for each subject-matter course. Such courses must also be selected on the basis of vocational outcomes desired. At present many courses included in the curricula of teacher-training institutions do not affect the practice of young teachers, since these courses are not organized with reference to the use of the content in the positions to which young teachers must go. Because teacher-training institutions are primarily vocational, no subject or course can justly be included in the curricula of such schools which does not have a direct bearing on increasing teaching ability. In choosing subject-matter for the various courses in the curriculum, preference should be given to that material which is of greatest value in the preparation of teachers—regardless of the requirements of liberal arts colleges.

This means that courses must be put on a professional basis. The Teacher Training Committee of the New York State Teachers' Association recommends that:

> "The normal school curriculum shall give a thorough review of the subject-matter which the student will later be called upon to teach, from the professional viewpoint, incorporating method with subject-matter taught and making definite use of type lessons and devices, such as the teacher can actually use in practical teaching conditions. . . Nor in laying stress on these subjects need there be any loss in cultural values if they are properly taught. The subject-matter taught in the normal schools and teachers colleges should not, however, be a mere formal rehash of history, geography, arithmetic, and the like. It may be described as a review in the sense that these fields are viewed again, but at a college level. The attention of students and teachers should be upon (1) a thorough mastery of the field itself; a grasp and scope of knowledge which should give the independence, self-confidence and ease which a wide margin of information alone affords; (2) an understanding of the uses of the subject in fulfilling the aims of elementary education, together with an adequate knowledge of methods of attaining these ends. This implies a sound basis in the psychology of the subject and of the child at a given age; (3) an acquaintance with the history of the field and a working knowledge of its literature; (4) a thorough knowledge of the maps, texts, visual materials and other aids available in teaching; (5) the development of ability to interpret the results of diagnostic tests and to apply remedial measures; (6) the consideration of courses of study, their interpretation and proper use. There should be also some experience in planning units of work in conjunction with a given course of study. Such an integration of subject-matter and method not only makes for a more effective teaching of both, but saves time by eliminating some of the over-lapping of courses."[19]

Subject-Matter Courses Must Be Related to the Training School. But even with such improvement in subject-matter courses as the carrying out of the above recommendations would bring about, knowledge, and knowledge of right practices will not insure skill in the use of such. To insure that these courses will really contribute to the development of teachers, and that they will function in public school classrooms, they must be definitely related to the training school through observation, participation, and later through actual practice, in the training school which has the following aims and purposes selected in terms of vocational outcomes desired:

(1) To conduct a good school where boys and girls may learn, in order

(2) To provide an opportunity for intending teachers to acquire skill (through observation, participation and practice) in the organization and use of subject-matter, and theories of teaching which function best in developing democratic school situations;

(3) To help intending teachers develop those desirable personal qualities (habits, ideals, attitudes of mind) which are needed in professional advancement; and

(4) To develop those personality and character traits to a degree that they can develop desirable character in the chil-

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[19] Report of Teacher Training Committee, New York State Education, November, 1928.

dren of their schools and take their places in the social life of their communities as becomes thinking, constructive workers in a democratic society.

(5) In general to induct, gradually, intending teachers into the profession, and at the same time to be sure that they can go into the public schools and carry on efficient procedure.

Only through definite relations between the training school and subject-matter courses can the aims of either as defined in the preceding paragraphs, or the aim of the whole school, as previously defined, be realized. The following proposals represent some rather definite co-operative relations between training school and subject-matter teachers, which, if allowed to function, would greatly improve the efficiency of the product of teacher-training institutions.

III

CONSTRUCTIVE PROPOSALS FOR CO-OPERATION BETWEEN THE TRAINING SCHOOL AND SUBJECT-MATTER INSTRUCTORS

1. A teacher-training institution should be considered a vocational school of the highest type.
2. The president of such a professional school should be a democratic individual who sets free the maximum of energy of all the faculty and utilizes it in a co-operative way for the solution of the problems of the institution.
3. The training school should be considered the central department of the institution and the testing laboratory of every other department.
4. The faculty as a whole should determine the policies of the school.
5. Every instructor should know the aims and purposes of the school as a whole, the specific aims of the training school, and the relation of his particular subject to the accomplishment of these aims.
6. The teachers in the training school should be equally as well prepared for their work as are other faculty members; and should have the same professional standing (rank, salary, privilege).
7. There should be a dean of instruction or some such co-ordinating agent delegated to focus the work of the whole college upon the development of efficient teachers.
8. Every subject-matter and every theory course in a teachers' college should contribute to the training of teachers and should be closely related to the training school through observation, demonstration, and participation.
9. The staff as a whole, or as groups, should determine the subject-matter and methods of their training school and of the subject-matter courses.
10. The curriculum of the training school should directly influence the curriculum of the college.
11. The teaching of children in the training school for observation, demonstration, and regular classroom work should be done by "expert teachers of children." (All teachers in a teacher-training institution should be qualified for this work.)
12. There should be frequent conferences among academic teachers and between academic instructors and training school teachers, when every person is free to express his own position on every question under discussion.
13. All faculty members should observe children's learning in order to improve their own instruction of students who are preparing to teach children.
14. The responsibility for the training of teachers rests with all members of a teachers' college staff. For this reason all instructors should observe student teachers at work in the training school.

Every department in which the student teacher has had work has a definite responsibility in improving the practice work of that student.

15. Co-operation should grow out of a respect for inherent relations found to exist in carrying out the purposes of a teacher preparing institution.

If the relationships implied in the above proposals could be realized, teacher-training institutions would carry out their aims much more effectively than they are now doing. But these relations cannot be realized unless every instructor is conscious of the fact that whole-hearted co-operation is essential to carrying out the aims of a teacher-training institution. Whole-hearted co-operation is essential because without the *spirit* and *will* to co-operate, any degree of consciousness of inherent relations would avail nothing.

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Lenora E. Johnson

EDUCATIONAL AGE AS A BASIS FOR MEASURING RETARDATION

THE science of education is in its infancy, but some of its practices are already verging on senescence. One of these is the common age-grade method of computing what is known as retardation. This method has rounded out a quarter of a century of distinguished service in the field of child accounting, and has now passed the period of its greatest usefulness. In the measurement of retardation, according to the evidence hereinafter supplied, it should be replaced by a more reliable method based on educational age instead of chronological age.

When the late Superintendent Maxwell, of New York City, made his suggestive study of retardation in 1904, he inaugurated not only a method, but indeed a movement. His method, refined by Thorndike, Ayres, and Strayer, has become a standardized procedure in school surveys, while the results of its application have offered a point of departure, in fact, a foundation, for the scientific study of school administration. On the whole, the studies of retardation, based on the relation between chronological age and grade position of pupils, have made a splendid contribution. When, however, one examines the reports of recent surveys, one finds it hard to escape the impression that this type of study has somehow taken a secondary place since the advent of the testing movement. This is not to say that it has been completely superseded. Age-grade investigations, as one writer contends, furnish "a quantitative statement of output as compared with intake." That is, they provide an index of the holding power of the school. It will, no doubt, be conceded that they are exceedingly valuable for this purpose, and that such an index has an important place in the comparative study of school systems.

The point to which attention will be given in this paper, is the use of this method in the measurement of retardation. The method grew up in the days when the principal basis for the classification of pupils in the public schools was chronological. The supposition was that all pupils should enter at about 6 years of age, and that normalcy consisted in advancing one grade per year thereafter. When a school system was found to have a third or more of its pupils moving behind the normal pace, the usual conclusion was that many, if not all, of these so-called retarded pupils were classified where they ought not to be. The classification resulted, of course, from the common administrative device of using chronological retardation as a means of adjusting the pupil to the school régime. Following the revelations of age-grade investigations,

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