DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

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PRACTICE TEACHING FOR TEACHERS IN SECONDARY SCHOOLS

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, June 1, 1917.

SIR: Despite the fact that normal schools which prepare teachers for elementary schools learned long ago that "a normal school without a practice school is like a swimming school without water," and that no effective professional training can be given without ample opportunity for observation of the ordinary processes of teaching and school organization and management, and for practice in teaching under expert direction and intelligent sympathetic criticism, few college and university classes, schools, and departments of education for the preparation of teachers for high schools and of superintendents, supervisors, principals, and special teachers made at first any provision for such observation and practice. Their experience has, however, finally taught them that high-school teachers, superintendents, supervisors, principals, and teachers of special subjects need opportunity for observation and practice during the period of their professional preparation no less than do those who are preparing to teach in the elementary schools, and, one after another, colleges and universities with classes, schools, or departments of education have established some kind of practice or observation school for the use of their students or have made other arrangements for them to do work of this kind. That information in regard to the organization, maintenance, and use of these schools and in regard to results obtained so far may be available, I recommend that the manuscript transmitted herewith on practice teaching for teachers in secondary schools be published as a bulletin of the Bureau of Education. This manuscript was prepared by Mr. A. R. Mead, of Ohio Wesleyan University, as a result of an extensive study of this subject, and has been revised for the use of this bureau at my request.

Respectfully submitted.

P. P. CLAXTON, *Commissioner.*

THE SECRETARY OF THE INTERIOR.

PRACTICE TEACHING FOR SECONDARY SCHOOL TEACHERS.[1]

REPORT OF A STUDY OF INSTITUTIONS WITH TEACHER-TRAINING DEPARTMENTS.

By A. R. Mead.

During the year 1914-15, a questionnaire was sent to all heads of departments of education and deans of schools and colleges of education listed in the directory of the United States Bureau of Education. The questions asked were as follows:

1. For practice teaching for prospective secondary teachers, do you use your own high school, or a public high school not under your control?
2. How many prospective secondary teachers actually do practice teaching?
3. How much teaching does each person do?
4. How are these persons selected?
5. Who actually supervises the practice teaching?
6. If you utilize a public high school, what does the privilege cost, and upon what is the cost based?
7. How do you administer practice teaching when the subject concerned is a laboratory science?
8. Please give any suggestions you desire regarding what you consider the best general organization and administration of this type of professional training.

The classification of the returns was made upon about the same basis as that used by Prof. C. H. Johnston for the Society of College Teachers of Education (see Year Book for 1914, p. 8). In the State university group, 30 replies were received; from the second group, large non-State universities, 13 replies were received, if Cornell be included; from the third group there were 133 replies; and from the State agricultural colleges there were 6. This makes the total of replies 182. In addition, a few letters from individuals not representing any institution were received. The total number of institutions to which questionnaires were sent was 295. Slightly less than 65 per cent of the institutions replied.

Of the first group, the following institutions made no provision for student teaching for prospective secondary teachers: Alabama, Illinois, Kentucky, Michigan, Mississippi, New Mexico, South Dakota, Tennessee, Vermont, Virginia; total, 10, or 33⅓ per cent of the State universities. Of this group which do not make such provisions, the following are planning to establish such work: Illinois, Kentucky, Tennessee, Vermont, Virginia. It is probable that others are plan-

[1] Much of the material in this bulletin was gathered by the committee on practice teaching of the Society of College Teachers of Education. The studies of Mead, Chambers, Childs, and Gray are from reports of this committee; likewise most of the descriptions of systems utilized by different institutions. The bibliography was compiled by Dr. Romiet Stevens and the chairman of the committee.

ning such work, but their replies do not reveal the fact. Then it appears that 66.6 per cent of the State universities reporting are actually giving this work, and 83.3 per cent are either giving or planning to give it.

STATE UNIVERSITIES.

Student teaching for prospective secondary teachers.

Universities.	Secondary school used.		Number of prospective teachers.	Amount of teaching done (semester hours).
	Own.[1]	Public.[1]		
Arkansas	×		[2] 50	10
California	×		30–40	5
Georgia		×	10–15	[3] 1
Idaho		×	[2] 10	1–5
Iowa		×	[2] 20	2–3
Kansas	×	×	75	2.5–5
Maine		×	2–6	5
Minnesota	×		100	5
Missouri	×		60	10
Montana		×	10	([4])
Nevada		×	10–20	10
North Dakota	×		20	([4])
Ohio State		×	30	5
Oregon		×	61	5
Texas		×	36	14–28
Utah	×		30	4
Washington		×	40	[2] 8
West Virginia		×	10–15	½–4
Wyoming	×		([5])	5
Total	8	11	614–648	80½–89½
Average			32–34	4¼–4½
Median			30	5
Average deviation			22	2.2

[1] The cross (×) means yes.
[2] Approximately.
[3] Includes observation.
[4] Given as "Two months' observation and two months' practice."
[5] Required of "all who take course in senior year."

HOW THE STUDENT TEACHER IS SELECTED AT STATE UNIVERSITIES.

Arkansas.—Persons who major in school of education teach the subject they desire to specialize in.

California.—Furnish teaching for all "cadets."

Georgia.—Persons detailed from class.

Idaho.—Seniors given first choice; those with most preparation given preference.

Iowa.—Seniors in university. Selected by methods teachers.

Kansas.—Seniors or graduates who are candidates for State teacher's certificates. Usually have a special methods course.

Maine.—One semester of education is a prerequisite. Recommended by major instructor and approved by dean of department of education.

Minnesota.—On basis of university major.

Missouri.—By the superintendent of the university schools.

Montana.—Preliminary work in education and in major subject as basis.

Nevada.—Those taking "Education 3, Theory and Practice."

North Dakota.—Seniors in school of education.

Ohio State.—Required of all seniors in college of education.

Oregon.—Dean of school of education, head of collegiate department, and principal of high school cooperate to make selection.

Texas.—Required of all who desire the teacher's diploma.

Utah.—Seniors meeting requirements for high-school diploma.

Washington.—Students elect work subject to approval of instructor in charge.

West Virginia.—Any person qualified to take education course.
Wyoming.—Required of seniors in department of education.

BY WHOM TEACHING IS SUPERVISED.

Arkansas.—Supervisor of training and critic teachers.
California.—Two experienced men teachers; heads of departments less frequently.
Georgia.—Teacher in charge.
Idaho.—High-school principal and department of education. In some cases collegiate department exercises minor supervision.
Iowa.—Special methods teacher is head of department in high school and supervises the work. Some supervision by general methods teacher.
Kansas.—Principal of school who is also assistant professor of education. Representative of the collegiate department.
Maine.—Principal of high school and professor of education.
Minnesota.—Special supervisor.
Missouri.—Superintendent of university school and representative of collegiate department concerned and some special supervisors.
Montana.—Five critic teachers, members of faculty of Missoula County high school, with professor of education.
Nevada.—Instructor who gives theory and practice.
North Dakota.—Superintendent with general supervision and regular teachers with specific management.
Ohio State.—Professor of principles and practice.
Oregon.—Department of education.
Texas.—Professor of art or teaching and his assistants.
Utah.—Training school department supervisor and representative of the department of education.
Washington.—One member of department of education and regular teacher.
West Virginia.—Department of education.
Wyoming.—Professor of secondary education has general charge. Special supervision given by teacher of branch in high school.

COST OF USE OF PUBLIC HIGH SCHOOL.

Iowa.—Each teacher observed in paid $10 per month. The supervising teacher of practice teaching is paid one-half of salary by the university and one-half by local school board.
Montana.—The critic teachers, members of high-school staff, receive $40 each.
Nevada.—Allow student teacher to act as substitute teacher in high school, in case of sickness, for one week.

HOW WORK WAS ADMINISTERED WHEN SUBJECT WAS A LABORATORY SCIENCE.

The replies were too indefinite to be of much value. They seem to indicate that actual laboratory work is done by the student teacher.

SUGGESTIONS AS TO ORGANIZATION AND ADMINISTRATION.

1. Model or practice school should be a part of the school of education.

2. Greatest need for typical high-school experience in a real public high school. A separate school under university control should be established only when the other can not be secured, and even then it should not pose as a model school.

3. To use own high school gives satisfaction.

4. First, student in senior year should have observation in the second semester. Second, this should be followed by one more semester of work composed entirely of teaching in a real high school. Supervision under experts from education department.

5. Student teaching in eighth grade is better than teaching but one subject in a high school for practice work.

6. "I believe the only successful plan is to have a school for observation and practice under the complete control of the school of education. Then you can command and get things done without begging and compromising with other powers."

7. Make use of the seventh and eighth grades and high school for the work, remove the weak candidates and do not allow them to teach, and give student teacher full power and control over class.

8. Use school under your own control and supplement it with work in a public high school.

9. Favor supervision by department supervisor and college department of education.

10. Should have own practice school, the teachers of which you could select and you should have entire management of it.

These show that five, or one-half, prefer to have a high school controlled by the university, college, or school or department of education. Other suggestions are so scattered that they show no agreement.

NONSTATE UNIVERSITIES.

Student teaching for prospective secondary teachers.

Universities.	Secondary school used.		Number of prospective teachers.	Amount of teaching done (semester hours).
	Own.[1]	Public.[1]		
Chicago		(2)	75	[3] 1-2
Cincinnati		×	(4)	
Cornell		×	(5)	
George Washington	×		5	[6] 2
Harvard		×	40	2½-6½
Johns Hopkins			(7)	
New York		×	(8)	
Northwestern	×		15	5
Pennsylvania		×	(9)	
Pittsburgh		×	(4)	20
Leland Stanford		×	30	[3] 5
Teachers' College		×	100	[10]
Washington (St. Louis)		×	25	1½
Total	2	11	290	32.1-38.6
Average			41	4-4.8
Median			30	4.55
Average deviation			27	

[1] The cross (×) means yes.
[2] Uses classes in private schools and in social settlements, as well as own high school.
[3] Maximum of about seven semester hours required of candidates for degree.
[4] All who complete course.
[5] Work very limited.
[6] Uses eighth grade for most of work.
[7] No practice teaching.
[8] Work now being organized.
[9] Use also assistantships in university.
[10] Depends upon previous experience.

HOW THE STUDENT TEACHER IS SELECTED AT NON-STATE UNIVERSITIES.

Northwestern.—By heads of collegiate departments concerned.

New York University.—Selected by dean.

Pennsylvania.—All seniors in school of education required to do this teaching.

Pittsburgh.—All persons who complete course in school of education.

Teachers College.—Matter settled very largely by the student's faculty adviser.

Harvard.—Certain senior and graduate students.

Cincinnati.—Selected by professor of secondary education.

Leland Stanford.—Elective for graduate students.

Chicago.—Required of all college of education students, and elective for arts and science students.

Washington (St. Louis).—"Fitness for certain subjects."

George Washington.—All without successful teaching experience.

WHO ACTUALLY SUPERVISES THE PRACTICE TEACHING.

Northwestern.—Critic teachers and professor of secondary education.

New York University.—One of the instructors of the school of pedagogy.

University of Pennsylvania.—The professor and assistant professor of educational practice.

Pittsburgh.—"Our own supervisor, the principal of high school."

Teachers College.—"Instructor of methods classes and heads of departments in schools."

Harvard.—Professor of secondary education has general charge. "The teacher of the department in the high school; the principal."

Cincinnati.—Professor of secondary education and the regular teacher of the class where the teaching is done.

Leland Stanford.—Member of the department of education has general charge. Is assisted by school principals, and professors of collegiate departments who permit practice teaching in their classes.

Chicago.—Regular room teacher and some members of the collegiate department concerned in the college of education, e. g., department of history.

Washington (St. Louis).—The regular teacher of the room and the professor of education.

George Washington.—Professor of education and the regular teacher of the room.

In seven of these cases the real supervision is conducted by a combination—a member of the staff of the department or school of education and a member of the staff of the school where the teaching is done. In but one institution, Leland Stanford, is it evident from the returns that a member of the staff of the liberal arts faculty helps in the supervision, and in this case it is probably only with such instances as teaching done by student teachers in college classes. Outside of these two generalizations, it seems to be evident that wide variation exists.

THE COST OF THE USE OF THE PUBLIC HIGH SCHOOL.

At Pittsburgh the school granting the privilege of student teaching is given a scholarship for two hours' work in the classes in education. On the other hand, the board of education pays the necessary expenses of the student teacher. At Teachers College the student teacher may receive remuneration for the service, but it is not apparent that the college makes any money payment for the service. This is true because the work is largely that of substitute teachers in the city schools. At Harvard, "in return for each position occupied by

one of our students, we grant a single course free of tuition to any teacher named by the superintendent of the town." In the following institutions the privilege of student teaching in the public high school is given at no expense to the school or department of education: George Washington, Washington (St. Louis), Leland Stanford, Cincinnati, Pennsylvania, New York University; total, six. Others do not use a high school, or do not report anything under this item.

ADMINISTRATION OF STUDENT TEACHING FOR LABORATORY SCIENCE.

At Northwestern the student teacher must take charge of laboratory periods as if the class were his own. At Pittsburgh the first year is often spent chiefly as a laboratory assistant, the second year is that of teaching, and the laboratory work is extra. At Teachers College the student teacher acts as assistant. This covers a period of nine weeks. At Harvard the student teacher actually directs the laboratory work. At the University of Cincinnati the student begins as assistant and later does actual teaching. At Leland Stanford some few do assistant work in freshman class of the college. At Chicago the teacher takes actual charge of the laboratory period. George Washington, Washington, New York University, and Pennsylvania report that they have as yet done nothing with this kind of work.

This reveals two dominant practices: First, acting as assistant in the laboratory; second, combining this with some real direction of laboratory work.

SUGGESTIONS AS TO ORGANIZATION AND ADMINISTRATION.

The reply from Cornell University recommends the New York City "teachers in training" plan. From Johns Hopkins comes the statement that the plan of using public high schools has certain advantages, if it can be established upon a cooperative basis. The following from Northwestern seems very good: (1) A practice school over which you have absolute control; (2) a good corps of critic teachers; (3) cooperation on the part of all the heads of the departments in the university. These three things are necessary. The Pittsburgh plan is liked very much at that institution. It has one defect, i. e., that the distance from the school of education to the high school is often too great to work to efficiency. Harvard University, with its system of cooperation between the university and public high schools, would add pay from the university to critic teachers in public schools for good supervision. At Cincinnati the fact that the college of teachers is a part of the city system eliminates many difficulties found in other plans. From Stanford comes the following statement: "The thing most needed is, in my opinion, a university and not a department machinery and interest." From the school of education, University of Chicago: "Separate observation courses have been abolished." Theory and practice courses have been broken up into theory courses

and practice courses, in order to protect the practice from neglect. The opinion from Washington University and George Washington University is that the practice school should be under control of the institution giving the training.

Here, again, is variety of opinion. There seems to be no general agreement in these suggestions.

OTHER UNIVERSITIES AND COLLEGES.

Student teaching for prospective secondary teachers.

Names.	Secondary school used.		Number of prospective teachers.	Amount of teaching done (semester hours).
	Own.[1]	Public.[1]		
Alfred University		×	5–6	[3]
Alma College		×	4	3
Ashland College		×	[4] 12	1–2
Baldwin-Wallace College	×		13	1½
Bellevue College	×	×	6–12	5
Beloit College				[5]
Bowdoin College	×		6	[6]
Brown University		×	15	[7] 8–30
Central College	×		4–7	3
Clark College		×	8–10	½–1
Coe College	×		[9]	4–5
College of the City of New York	×		25	[10] 1
Colorado College		×	0	20
Cotner College		×	20	5–10
Dakota Wesleyan University	×		[11]	[12]
University of Denver		×	40	3
Doane College	×		16	[13] 4
Earlham College		×		[14]
Elon College	×		15–20	[15]
Fairmount College	×	×	8	[16] 8
Franklin College		×	4	[17]
Geneva College		×	4–5	[18]
Grand Island College	×		6–10	5
Greenville College (Ill.)	×		6	[19]
Grinnell College		×		
Gustavus Adolphus College	×		10–15	5
Hanover College	×		[20]	[21]
Hastings College	×		2–6	[22]
Heidelberg University		×	18–20	1½
Henry Kendall College	×			
Hiram College		×	4	[23]
Hope College	×	×	12–20	[24]
Howard University (col.)		×	[25]	9
Juniata College	×		12–15	[26]
Kalamazoo College	×		25	[27]
King College	×		5	[28]
Lawrence College				
Lebanon Valley College		×	4	2
Lehigh University	×	×		
Lincoln Memorial University	×		12	2
Macalster College		×	16	[29]
Middlebury College	×		6	[30]
Milton College		×	40–50	2–4
Milwaukee-Downer College	×		13	[31]
Missouri Valley College	×		6	[32]
Missouri Wesleyan College				

[1] The cross (×) means yes.
[2] Joint control of a single school.
[3] Ten weeks.
[4] Approximately.
[5] "About a month's work."
[6] "From one day to two months."
[7] "150 to 600 periods."
[8] Uses subfreshman class.
[9] 25 per cent of seniors.
[10] "About 20 hours."
[11] "Very few."
[12] Very little.
[13] Two replies received; one gave "30 hours or more."
[14] Very little; not more than half a dozen periods a student.
[15] Two hours per week.
[16] One year, 4 hours a week.
[17] "One hour a day."
[18] Only a few days.
[19] Three to five hours a week.
[20] About 50 per cent of prospective teachers.
[21] Two weeks to one year.
[22] One semester.
[23] Minimum, 15 hours.
[24] Six weeks.
[25] All seniors.
[26] Average 2 hours a week.
[27] About 6 hours a week.
[28] Four weeks.
[29] One class a day.
[30] Two weeks in two subjects.
[31] Half a year.
[32] One class one semester.

Students teaching for prospective secondary teachers—Continued.

Names.	Secondary school used.		Number of prospective teachers.	Amount of teaching done (semester hours).
	Own.	Public.		
Mount Union College	X		9	1½
Muskingum College	X	X		
Nebraska Wesleyan University	X		25	5
Oberlin College		[2] X	8	1½
Ohio Northern University		X	10	2–3
Ohio Wesleyan University	X		22	1½
Ottawa University	X		10–16	
Otterbein University	X	X		1½
Park College	X		6	½–1
Ripon College		X	15–20	([3])
College of St. Elizabeth	X			([4])
St. Johns University (Minn.)	X		13	([5])
St. Olaf College	X		30	2
Shaw University	X			
Southwestern University (Tex.)	X		15	5
Susquehanna University	X		3	([6])
Swarthmore College		X	14	([7])
Tarkio College	X		8–10	3
Temple University	X		25–30	([8])
Texas Woman's College	X	X	2	([9])
Trinity College (N. C.)	X	X		
Upper Iowa University		X	7	2½
Whitman College		X	6–10	
College of William and Mary		X	30	2½
Yankton College	X		5–6	([10])
York College	X		5	([11])
Total	46	35	700–754	[12] 95.5–128.5
Average			12.3–13.2	[12] 3.08–4.1
Average deviation (57 institutions)			7.02	[12] 2.1
Median (53 institutions)			10	[12] 2.5

[1] Joint control of a single school.
[2] Utilizes summer session of local high school for the work.
[3] About one week.
[4] Practice, 50 hours.
[5] Five to ten hours a week.
[6] Eight to ten hours a week.
[7] Six to eight weeks of practice.
[8] Varying amounts.
[9] Three hours a week.
[10] Five hours a week.
[11] Four hours a week.
[12] For 31 institutions.

The semester hours here tabulated are obtained by two methods: First, the amount of teaching was sometimes stated in semester hours; second, in other cases it was estimated on the basis of the number of class periods actually taught, counting 18 such periods as one semester hour. In computing the average deviations, but one set of measures has been used, i. e., the one measure and the minimum, for example, the measures for Temple University are 25–30, and 25 was the only one used. In the totals for institutions using "Own" or "Public" high school, there are nine cases in which both kinds are used. Also, Beloit reports that the students of the methods class teach each other. A number of institutions, not in the table, report the same practice, but give no other data, and so are not here included.

Some of the institutions offer practice teaching, but not for secondary teachers. Berea College offers this work, but only for the training of country school teachers. Two institutions report that they do not deem it wise to offer such work. One writes:

> There are a number of normal schools in this State which teach methods and nothing else much, and I feel that it is the mission of this school to give something that can not be gotten there. I base my work on the assumption that there are certain things which everyone should know, whether he teaches or not. I build it around two or three subjects as centers; one of these is genetic psychology, another abnormal psychology, and another hygiene.

Another writes:

The practice school is usually too artificial to be worth much. In my opinion the smaller colleges will do best without it.

Fifty-seven of these institutions offer practice teaching for secondary teachers amounting to two or three semester hours, about 700 students sharing in this kind of work. Fifty-eight of these institutions offer no such work for secondary teachers, yet send their graduates into high schools to teach. Approximately 50 per cent of the third group, then, recognize the value of this work to the extent of offering a low minimum of it, while the other 50 per cent do not offer it at all.

HOW THE STUDENT TEACHERS ARE SELECTED.

Alfred University.—"They are seniors who have shown teaching ability in the education work of the junior year. They must also have the indorsement of the college department" concerned.

Alma College.—"The head of the department of education and the superintendent of schools consider the qualifications of the candidate and the need of the school and select on that basis."

Ashland College.—"All persons who finish our normal course." "By the head of the department."

Baldwin-Wallace College.—"From junior and senior college classes. Very few juniors."

Bellevue College.—Required of all who receive college first-grade certificate for Nebraska.

Beloit College.—Membership in methods class gives privilege of teaching members of same class.

Bowdoin College.—"By the professor of education."

Brown University.—"Partly by myself" (professor of education), "partly by the superintendent of schools, and partly by the school committee."

Central College (Mo.).—All who meet State requirements for college graduates' State certificate. "These are seniors in the college. We allow the stronger ones to begin in the first semester. The less promising we reserve until we are sure they will graduate, and until they have fulfilled all the other requirements."

Clark College.—"Only students who gave promise of success. With a single exception, they were men of high standing both in their general college work and in pedagogy. We mean to have it regarded as a privilege."

Coe College.—"By the officer of the subfreshman class on scholarship."

College of the City of New York.—Student approved first by head of collegiate department concerned, and then by head of department of education.

Colorado College.—Students make application for the work. Reply did not state further methods, if any used.

Cotner University.—Selected by the head of the department of education.

Dakota Wesleyan University.—Work is elective.

University of Denver.—Selected by head of department of education.

Doane College.—Required of all seniors who are candidates for teachers' certificates.

Earlham College.—Some juniors and seniors selected by superintendent and high-school principal.

Elon College.—Selected from classes of third and fourth year students.

Fairmount College.—Selected by the department of education in consultation with the departments in which the teaching is to be done.

Franklin College (Ind.).—Recommended by department of education in college and selected by the city superintendent.

Geneva College.—Selected by head of department of education and psychology.

Grand Island College.—"By president, head of department of education, and head of department in which teaching is done, in conference."

Greenville College.—"On recommendation of heads of departments."

Grinnell College.—Membership in class on methods and sanction of superintendent of schools.

Gustavus Adolphus College.—Seniors who wish State certificate.

Hanover College.—"By the president."

Hastings College.—"Have been able so far to supply work for all desiring it."

Heidelberg University.—"By the professor of education."

Henry Kendall.—Use advanced students to assist in academy.

Hiram College.—"Seniors expecting to teach who have had prerequisite course."

Hope College.—Seniors who make average of 80 per cent in all other work.

Howard University (colored).—All seniors required to do practice teaching.

Juniata College—Required of all who elect course in high-school methods.

Kalamazoo College.—"Each member of class in pedagogy takes his turn in alphabetical order." Required of all in class.

King College.—"By the president."

Lawrence College.—Selected by head of department of education.

Lebanon Valley College.—No report on this point.

Lehigh University.—Apparently the work is elective.

Lincoln Memorial University.—No report on this point.

Macalester College.—Required of all who expect to teach.

Middlebury College.—"By the head of the department on the basis of pedagogical, academic, and personal qualifications."

Milton College.—Membership in class in pedagogy for some. Others as to special fitness.

Milwaukee-Downer College.—Required of all candidates for certificates or degree in home economics.

Missouri Valley College.—"All those who take the course teach."

Missouri Wesleyan College.—Those preparing for State certificate.

Mount Union College.—"From upper classmen who are endeavoring to meet the new school code and who have had preceding theory."

Muskingum College.—Report does not reveal procedure.

Nebraska Wesleyan University.—"All seniors who have had prerequisites."

Oberlin College.—"All members of the class in practice teaching." Limited to summer work in 1914.

Ohio Northern University.—Report does not reveal practice followed.

Ottawa University.—Excellence in content subject and in course in principles of secondary method.

Otterbein College.—Report does not reveal actual practice followed.

Park College.—By the professor of education.

Ripon College.—By professor of education.

College of St. Elizabeth.—Juniors and seniors who elect pedagogy courses.

St. Johns University.—On basis of at least two years' college work.

St. Olaf College.—Seniors who received sanction of department concerned with content subject and who are taking 15 semester hours in education.

Shaw University (colored).—Work too recent to report on in detail.

Southwestern University (*Tex.*).—Head of department of education, principal of secondary school, and president. Then names are submitted to entire faculty for ratification.

Susquehanna University.—"By the president."

Swarthmore College.—All who do this have had at least 15 semester hours of education.

Tarkio College.—Required of all who are candidates for State certificates.

Temple University.—"By heads of college departments."

Texas Woman's College.—Practice followed not revealed by answer.

Trinity College (*N. C.*).—Work too recent to report practice followed.

Upper Iowa University.—Elective for seniors.

Whitman College.—City superintendent selects from list submitted to him.

College of William and Mary.—Required of all applicants for teachers' diploma in last year of course. Assignments made by professor of education.

Yankton College.—Professor of normal work and heads of college departments.

York College.—By professor of education and regular teacher.

The following methods of selection occur frequently enough to make them noticeable: (1) By professor of education; (2) by professor of education and superintendent of schools; (3) by professor of education and head of collegiate department concerned; (4) largely on the basis of membership in senior class. Outside of these the above shows a very marked variation. Attention is here called to the method used at Southwestern University, Hope College, Milwaukee-Downer, and Whitman College. Attention is also called to the number of cases in which the president of the college makes the selection.

HOW THE PRACTICE TEACHING IS SUPERVISED.

Alfred University.—Professor of education gives actual supervision, occasionally assisted by other members of the faculty who have training in education. "Theoretically the class teacher criticizes plans and class teaching also, in practice. I find the teachers, with the exception of the principal, unable to give any help."

Alma College.—Cooperation among superintendent, professor of education, and professor of collegiate department concerned, but plan yet indefinite.

Ashland College.—Usually done by regular class teacher. Later return states that this is done by the ward principal.

Baldwin-Wallace College.—Professor of collegiate department concerned.

Bellevue College.—Regular high-school teachers and professor of education.

Beloit College.—Professor of pedagogy and heads of departments in teachers' courses.

Bowdoin College.—"Principals."

Brown University.—Done by supervising teacher and professor of educational psychology.

Central College.—By assistant professor of philosophy and education.

Clark College.—"The practice teachers were visited by a representative of the State board of education, by the local superintendent, by a representative of the college, and received suggestions more or less from them all."

Coe College.—Not much actual supervision. What is given is done by person in charge of subfreshman class.

College of the City of New York.—Supervised by instructor in secondary teaching.

Colorado College.—Regular teachers, principals, and professor of education, the two latter visiting occasionally.

Cotner University.—Professor of education and regular teachers.
Dakota Wesleyan University.—Regular teacher.
University of Denver.—Principal, occasionally assisted by professor of education.
Doane College.—Professor of education; also regular teacher.
Earlham College.—Superintendent and principal give a course in observation and practice teaching and have full charge of the work.
Elon College.—Professor of pedagogy.
Fairmount College.—"Heads of departments where teaching is done;" that is, the regular teachers.
Franklin College.—Superintendent and high-school teachers.
Genera College.—Superintendent of public schools.
Grand Island College.—Professor of education and regular teachers.
Greenville College.—By regular class teachers.
Grinnell College.—Report does not reveal how this is done.
Gustavus Adolphus College.—Professor of education and heads of collegiate departments concerned.
Heidelberg University.—Regular class teacher and member of collegiate department concerned.
Hiram College.—Professor of education.
Howard University (colored).—Regular class teacher and member of university faculty.
Hanover College.—"President and head of department in which student majors."
Hastings College.—Professor of education and head of college department concerned.
Henry Kendall College.—No report on this point.
Hope College.—Regular teacher and occasionally help from professor of education.
Juniata College.—Regular teacher and professor of education.
Kalamazoo College.—Regular teachers.
King College.—No supervision.
Lawrence College.—Regular teacher and professor of education.
Lebanon Valley College.—No report.
Lehigh University.—Professor of education.
Lincoln Memorial University.—Professor of education.
Macalester College.—Heads of college departments.
Middlebury College.—Professor of pedagogy.
Milton College.—Regular class teacher.
Milwaukee-Downer College.—Director of department of home economics and city superintendent of same subject. No work in other subjects.
Missouri Valley College.—Professor of education.
Missouri Wesleyan College.—The principal of the academy.
Mount Union College.—Professor of education, head of collegiate department concerned.
Muskingum College.—Regular teacher.
Nebraska Wesleyan University.—Supervisor of practice school.
Oberlin College.—A special supervising teacher helped by high-school principal during summer of 1914.
Ohio Northern University.—Professor of education, assisted by regular teacher or principal.
Ottawa University.—"A general supervisor, an experienced high-school principal, with graduate training in education, supplemented by the various college professors and professor of education."
Otterbein University.—Instructor in methods and regular class teachers.
Park College.—A special supervisor.
Ripon College.—Joint supervision by professor of education, superintendent, and regular teacher.

College of St. Elizabeth.—Regular teachers.

St. Johns University.—"The prefect of studies."

St. Olaf College.—Professor of education and regular teachers.

Shaw University (colored).—No report on this point.

Southwestern University (Tex.).—Principal devotes half of his time to this work. Professor of education and supervising teachers hold conferences with student teachers and visit their classes.

Swarthmore College.—Professor of education, regular teachers and superintendent of schools.

Tarkio College.—Regular teachers.

Temple University.—"High-school teacher and college instructor."

Texas Woman's College.—Regular teachers and professor of education.

Trinity College (N. C.).—No report.

Upper Iowa University.—Professor of education and superintendent.

Whitman College.—City superintendent of schools.

College of William and Mary.—Regular teachers, principal, and professor of education.

Yankton College.—Heads of collegiate department concerned.

York College.—Head of college department concerned.

From the foregoing data the following summary is made: Supervision by professor of education, 7 instances; by professor of education and heads of collegiate departments concerned, 6 instances; by heads of collegiate departments alone, 4; regular class teacher and representative of collegiate departments, 11; by regular class teacher alone, 10; by the principal, regular teachers of classes, and professor of education, 4; by principal, 4; by principal and professor of education, 1; by the superintendent alone, or with other persons, 5 cases.

COST OF USE OF PUBLIC HIGH SCHOOL.

Three different conditions exist with regard to the cost of the use of the public high school by the college: (1) At Bowdoin and Whitman Colleges the student teachers receive remuneration for their services; (2) in 6 others some money is paid by the college for the privilege; (3) and in 20 colleges there is no cost for this service.

Ashland College pays a supervising teacher $100 per year, while Brown University pays each supervising teacher $50 a year. Ohio Northern University grants free tuition to the graduates of the high school if they enter the college. Clark College pays the car fare of the student teacher, and at Middlebury it costs "the time of the supervisor, approximately, $2,400."

The following institutions report that such privileges cost them nothing: Alma, Baldwin-Wallace, Colorado College, Cotner, Fairmount, Geneva, Hiram, Hope, Howard, Lincoln Memorial University, Lawrence, Lehigh, Milwaukee-Downer, Missouri Wesleyan, Oberlin, Ripon, Swarthmore, Texas Woman's College, Trinity College, and Upper Iowa University.

The remainder gave no information, pro or con, as to the cost.

PRACTICE TEACHING WITH LABORATORY SCIENCE.

Alfred University.—"Just as in any other subject."
Baldwin-Wallace College.—"Our science men, regular professors, have supervision."
Bellevue College.—"The practice teacher has charge of the laboratory work under the direction of the regular instructor."
Beloit College.—"This is done in the teachers' courses in the laboratory of each department."
Brown University.—"Student teacher in the laboratory as any other teacher does."
Central College (Mo.).—"The practice teacher is put in full charge of the regular academy class in physics."
Clark College.—"High school furnished the equipment."
Colorado College.—"Practice teachers act as laboratory assistants."
Cotner University.—"Let student be laboratory assistant."
Doane College.—"Practice teacher serves the same as the paid teacher."
Elon College.—"Work done under the supervision of the director of the physical or chemical laboratory."
Fairmount College.—"Supervised by heads of departments."
Grand Island College.—"Student teacher has charge of the laboratory work as a regular teacher."
Gustavus Adolphus College.—"Assist regular teacher in laboratory work."
Hanover College.—"Student works under supervision of college professor of the subject."
Hastings College.—"Student acts as laboratory assistant."
Kalamazoo College.—"Assist with apparatus."
Lincoln Memorial University.—"Teacher of science directs."
Macalester College.—"By quiz work and actual direction of laboratory work in elementary courses."
Middlebury College.—"The same as other subjects."
Milton College.—"Student takes charge as regular teacher."
Milwaukee-Downer College.—"Assist regular teacher during first half of regular weekly period; have responsibility of teaching class during second half of weekly period."
Missouri Valley College.—"Head of department outlines the course. Head of education department supervises method and class management."
Missouri Wesleyan College.—"Practice teacher responsible for both recitation and laboratory work."
Mount Union College.—"Under head of department."
Nebraska Wesleyan University.—"Usually student serves as laboratory assistant and is supervised by head of department concerned and also by the practice supervisor."
Ohio Northern University.—"Student has charge of laboratory as well as class work."
Ottawa University.—"Supervisor and college teacher cooperate in recitation and visitation, organization and planning."
Park College.—"Student teacher under direction of regular professor."
Ripon College.—"Acts as laboratory assistant."
College of St. Elizabeth.—"The student conducts the class under the supervision of the regular teacher and in presence of class in pedagogy."
St. Olaf.—"Acts as laboratory assistant."
Southwestern University.—"We have physics taught in the college laboratory."
Susquehanna University.—"Under direction of college teacher of science."
Upper Iowa University.—"Acts as laboratory assistant."
Yankton College.—"Acts as laboratory assistant."
York College.—"Teacher works under head of department."

Eighteen of the colleges made no reply. Seventeen stated that they gave no such work, and several others that they avoided it. Thirty-seven try to manage the work in some form. This shows that not much real work is being done in laboratory sciences for student teaching among the smaller colleges.

In 10 of the 37 institutions, the student teacher acts as laboratory assistant; in 13 the student teacher has charge of the work as regular teacher. Other facts about this work refer to various details of supervision of the teaching.

SUGGESTIONS AS TO ORGANIZATION AND ADMINISTRATION OF PRACTICE TEACHING.

Alfred University.—"Daily conferences are necessary for efficient work."

Bellevue College.—"Careful supervision and conferences necessary."

Beloit College.—"In the teachers' courses there is more or less teaching practice. I think practice teaching done in this way is more helpful than any done on the high school."

Colorado College.—"I think nothing can beat work done under actual public school conditions. We have found that we can help the schools and they give us valuable help."

Elon College.—"Should be under the charge of department of education and heads of college departments concerned."

Franklin College.—"A cooperative arrangement between public high school and college is best. Supervising teacher should be head of department in high school and give special methods course in college."

Gustavus Adolphus.—"A practice school is better than a public high school for this work."

Howard University.—"A high school under control of department of education is best."

Juniata College.—"Best to affiliate with a public high school."

Lawrence College.—High school should be under control of department of education.

Lincoln Memorial University.—Use your own secondary school and supplement the work by visits to public schools.

Macalester College.—There should be a half-year of student teaching required by State law.

Missouri Valley College.—Practice teaching should be under the joint supervision of department of education and collegiate departments concerned.

Missouri Wesleyan College.—"Observation should accompany both methods, courses, and practice teaching."

Ohio Northern University.—"A plan like that at the University of Missouri is preferable to a public high school."

Upper Iowa University.—A cooperative system between colleges and public high schools is best.

From these statements it is evident that opinion varies much among the colleges. Five recommend outright a separate ("own") practice school. Three recommend a public high school and a plan of cooperation between college and high school. As to supervision, three recommend joint supervision by department of education and collegiate departments concerned.

STATE AGRICULTURAL COLLEGES.

Student teaching for prospective secondary teachers.

Names.	Secondary school used.		Number of prospective teachers.	Amount of teaching done (semester hours).	How selected.
	Own.[1]	Public.[1]			
Iowa State College of Agriculture		×	50	2/3	Elective.
Kansas State Agricultural College	×		100	(2)	Do.
Michigan Agricultural College		×	40	(3)	By heads of Dept.
Mississippi Agricultural College			18		
Oklahoma Agricultural College			10–20	(4)	By Dept. of Educ. and Dept. in college.
Purdue University		×	30	3	Seniors in Dept. of Educ.
Total	1	3	248–258		
Average			41–43		
Median			40		

[1] The cross (×) means yes. [2] Twelve weeks. [3] One to three weeks. [4] Varies.

Mississippi Agricultural College uses the subfreshman class for practice teaching, and Oklahoma Agricultural College uses "any opportunity available." It is not possible to generalize as to the amount of teaching done, but the tendency as to number of teachers seems to be about 40 per institution.

The work is supervised as follows: Kansas State Agricultural College, by associate professor of education; Michigan, by heads of departments of home economics and agricultural education; Mississippi, by professor and associate professor of education and sometimes by head of department concerned; Purdue University, by superintendent of schools and professor of education.

Two suggestions as to organization come from these colleges: (1) All concerned with this work should be trained in education and in their special subject; (2) the practice work should be entirely under the control of the college.

SUMMARIES AND CONCLUSIONS.

Total questionnaires sent out	295
Replies received	182

STATE UNIVERSITIES.

State universities replying	30
State universities not giving practice teaching for secondary teachers	10
Per cent	33.3
State universities planning to give such work	6
Per cent	10.0
State universities giving such work now	20
Per cent	66.6
State universities using own secondary schools	8
Per cent	26.6
State universities using public high schools	11
Per cent	36.6
Average number of student teachers each year	32–34

Median number of student teachers each year	30
Average amount of teaching in semester hours	4 4/19–4 13/19
Median amount of teaching in semester hours	5

NONSTATE UNIVERSITIES.

Number replying	13
Use own high school	2
Use public high school	11
Average number of teachers each year	41
Median number of teachers each year	30
Average amount of teaching in semester hours	4–4. 8
Median amount of teaching in semester hours	4. 55

OTHER UNIVERSITIES AND COLLEGES.

Number replying	133
Number using own high school	46
Per cent	35
Number using public high school	35
Per cent	27
Average number of teachers each year (in 57 institutions)	12. 3
Median number of teachers each year (in 57 institutions)	10
Average amount of teaching, in semester hours (in 31 institutions)	3. 08
Median amount of teaching, in semester hours (in 31 institutions)	2. 5

STATE AGRICULTURAL COLLEGES.

Number replying	6
Number using own high school	1
Number using public high school	3
Average number of teachers each year	41–43
Median number of teachers each year	40

Amount of teaching done varies from two-thirds semester hour to about three semester hours.

GRAND TOTALS.

1. Number of institutions giving practice teaching for secondary teachers.	119
Per cent of those replying	90
Per cent of those to whom questionnaires were sent	40
2. Number of institutions using own high schools	57
Per cent of those replying	43
Per cent of those to whom questionnaires were sent	20
3. Number of institutions using public high school	60
Per cent of those replying	45
Per cent of all institutions included	20
4. Average number of student teachers each year (in 95 institutions)	19. 5–20. 5
5. Average amount of teaching done by student teacher, in semester hours (in 74 institutions)	3. 98

METHODS OF SELECTING STUDENT TEACHERS.

In most cases it is evident that the student teachers must have had certain courses in educational theory and in the subject they will teach before doing this teaching. This condition seems to be quite universal. In many cases, in all types of institutions, the actual selection is made either by a representative of the department or school of education, or by such representative and persons con-

nected with the collegiate department concerned. In a great many places it is elective; in others it is required, if the prospective teacher desires a degree, or a certain type of teachers' license, or both. In some places where cooperation exists between the institution and the public high school, a representative of the public high school shares in the selection of the teacher. In no case is it evident that a scholarship standard is adhered to in making such selection. In no case is it evident that any physical or moral qualification is adhered to in selecting these teachers. From the data found here it seems evident that there is need of a carefully planned system of selecting the student teachers.

HOW THE STUDENT TEACHING IS SUPERVISED.

All varieties of supervision exist, from practically little or no supervision to close and careful supervision. Often a representative of the department of education and a representative of the collegiate department concerned do this work. In several cases—20 in number—it is evident that the staff of the department or school of education have full supervision of this work. The typical arrangement is a combination of a representative of the department of education with some other person or persons. There are about 50 examples of this. In several places the supervision is conducted by persons who have practically no connection with the department or school of education. Practically no statements are made as to how this work is carried out.

THE COST OF THE USE OF THE PUBLIC HIGH SCHOOL.

With reference to this item, the following conditions exist: (1) In many places there is no item of expense for this service; (2) in several instances a flat fee is paid the public-school authorities for this service; (3) in some institutions the service rendered by the student-teacher to the high school is considered a return for the privilege of practice teaching; (4) in some few cases the student-teacher receives some income for the service rendered. This takes the form of payment of expenses, car fare, or the regular wages of a substitute teacher; (5) several institutions grant scholarships in return for this privilege. The most typical situation is one in which no cost item appears and in which there is cooperative effort between the institution and the public high school.

ADMINISTRATION OF PRACTICE TEACHING IN LABORATORY SCIENCES.

In most institutions no practice teaching in laboratory sciences is being done. Where it is, one of two plans is used. In one the student teacher is the laboratory assistant, and by such work learns what he can about the teaching of the subject. By the other plan

the student-teacher is given actual charge of the work, class work and laboratory work, under supervision. In many cases this work is done in college laboratories, not in laboratories designed for secondary schools.

SUGGESTIONS FOR ORGANIZATION AND ADMINISTRATION.

The suggestions for organization and administration show less unanimity than the description of actual conditions. For example, Beloit champions the old plan of the student-teacher teaching the class of which he or she is a member. Others flatly declare that student teaching under actual high-school conditions is the best. Still others insist that a practice school shall be a part of the institution, and not a part of the public-school system. The majority favor using the secondary schools for this purpose, not using college classes or upper grades. A few favor using the seventh and eighth grades, as well as a high school.

SOME INTERRELATIONS OF DEPARTMENTS OR SCHOOLS OF EDUCATION.[1]

By W. G. CHAMBERS.

This study was based on returns from the following questionnaire:

1. Are any courses offered in your institution, especially for teachers, either in special method (*e. g.*, the teaching of German), or in special subject matter, by members of other faculties than yours? If so, are they—
   (*a*) Listed among the courses of your school only?
   (*b*) Listed among the courses of other faculty only?
   (*c*) Listed among the courses of both faculties?
2. Do you control such courses wholly or partially?
3. Are they given only at your request or independently of your desires?
4. Are teachers giving such courses considered members of the education faculty?
5. Do they draw any portion of their salary from your budget?
6. Is your practice teaching ever supervised by members of other faculties, *e. g.*, a professor of Latin? If so—
   (*a*) What is his official relation to your faculty?
   (*b*) Is the practice teacher more directly responsible to him or to you?
7. What do you consider the ideal arrangement of these relations?

TABULATION OF REPLIES.

Replies were received from 34 institutions, but only 30 were used in the following tabulation:

I. (*a*) Are any courses offered especially for teachers either in special method or in a special subject matter, by members of other faculties than the education faculty?

	Institutions.	Per cent.
Yes	25	83.3
No	4	13.3
Course listed but not given	1	3.3
(*b*) Such courses are listed in the bulletins—		
Of education department only	3	10.0
Of academic department only	5	16.6
Of both departments	16	53.3
No replies (or no separate bulletins)	6	20.0
II. How are such courses controlled?		
Wholly by the education faculty	2	6.6
Partially by the education faculty	16	53.3
Wholly outside the education faculty	8	26.7
No replies	4	13.3

[1] This and the papers following constitute for the most part investigations by a committee of the college teachers of education. See note on p. 7.

III. Are the courses given only at request of the department of education or independently of its desires?

	Institutions.	Per cent.
By request only	17	56.7
In some cases by request, in some cases independently	2	6.6
Without any request	6	20.0
No reply	5	16.7

IV. Are the teachers giving such courses considered members of the education faculty?

Yes	6	20.0
No	15	50.0
Planning for such membership	1	3.3
In a special case only	1	3.3
Faculties not separate	2	6.7
No reply	5	16.7

V. Do such teachers draw any part of their salary from the education budget?

All of it	0	0.0
Partially	4	13.3
None of it	15	50
Have no separate budget	6	20
No reply	5	16.7

VI. Is practice teaching ever supervised by members of other faculties?

Yes	6	[1] 20
No	20	[2] 66.7
No practice teaching	4	13.3

Of the 6 institutions which have practice teaching supervised by an academic department, 3 have given the supervisor a minor position on the education faculty; in the other he has no connection with the faculty. In 3 of the 6 institutions the practice teacher is chiefly responsible to some member of the education faculty, which means that supervision is a cooperative arrangement; in one the practice teacher is responsible to an academic department for scholarship (subject matter) and special method and to the education department for general method; in another he is responsible to an academic department for subject matter and special method, and to the principal and supervisors of the training school for "discipline and personality," and in the last he is responsible to an academic department for special method and to the education department for general method.

It appears, therefore, that in none of the 6 cases reported is the supervision more than equally shared with an academic department.

VII. What would be an ideal arrangement in view of these relations?

The data submitted under this head do not lend themselves easily to quantitative tabulation. Of the 30 replies tabulated, 5 made no suggestions whatever under this topic; 9 suggested the plan

[1] 25 per cent of those having practice teaching. [2] 77 per cent of those having practice teaching.

under which their several institutions were working as the best plan for them; and 16 gave, in most cases very briefly suggestions representing partial or complete variation from their respective practices. The communication rejected from the above summaries, because the institution from which it came was organized independently and therefore did not conform to the conditions being investigated, contained some helpful suggestions which are included here with these last 16.

The 26 returns which gave suggestions as to an ideal adjustment of the relations of academic and professional departments for courses in special method and for supervision of teaching fell into seven general groups:

1. There is, first, a group of 5 papers which do not suggest any scheme of cooperation, but which mention some general principle important in the operation of any plan, or the replies of which are too brief or indefinite to permit of classification. *All alike suggest the importance of control by the department of education.*

2. The second group of 5 papers favors *complete independence of the education faculty in all special courses;* and while 4 of the contributors make no reference to supervision of teaching it is safe to assume that they would limit that function equally.

3. A single contributor, after describing the plan in his own school of giving all courses in special method and directing the work in observation (they have no practice teaching) through members of the education faculty, and of limiting the academic departments to courses in special subject matter, concludes:

"I think that this is the ideal division of work, except for the entire lack of control of the subject-matter courses."

4. Three others describe their own practice of arranging with the academic departments for courses in special method and subject matter and of limiting their supervision wholly to their own faculty, and express themselves as satisfied with the plan.

5. The largest group, consisting of 9 papers, favor cooperation with academic departments, both for special courses and for supervision, although, in a majority of cases, they emphasize the necessity of special educational training or public school experience on the part of the academic cooperator.

6. One institution with an almost complete independent organization submitted, through its dean, a description of its own organization and declared it to be satisfactory. This plan includes courses in special methods by the education faculty (while also accepting courses offered by academic departments) and supervision by members of the high-school faculty of the training school.

7. Finally, two of the contributors favor placing both supervision and special methods courses in charge of specially qualified teachers of the secondary schools in which the practice teaching is done.

SUMMARY AND CONCLUSIONS.

In spite of the variety of opinion which is shown in the data just reviewed concerning the particular scheme of cooperation between academic and educational departments which should be adopted, there is fair unanimity as to certain principles which should have recognition in any plan which may be adopted. Some of the more important principles which seem to have general acceptance are the following:

1. Some form of cooperation is essential. As universities are now organized a department, or even a school, of education can not furnish all the elements which are essential in the training and equipment of a teacher for secondary or higher schools. While certain disadvantages arise out of this dependence on other departments, there are perhaps greater advantages arising out of the more general university atmospheres, out of the wider range of interests and the more miscellaneous personal associations, than could be had in a more narrowly limited, even though the wholly professional, institution such as a State teachers' college.

2. All courses, instruments, and agencies in the universities which have for their chief purpose the instruction, training, or equipment of teachers should be centralized in the department or school of education, should be established only on the initiative of the education faculty, and should remain wholly under its control. In no other way can efficiency be secured or wasteful and irritating duplication be avoided. In no other way can a professional enthusiasm be aroused or a sense of professional loyalty be developed. No academic department should have the right to announce even a course in subject matter, especially for teachers, without first consulting and getting the approval of the education faculty. This faculty has for its chief function the promotion of the interests of teachers, and should, therefore, be the best judge of the fitness, the importance, and the need of proposed courses for teachers. Where the interdepartmental relations are what they should be, the education faculty will ordinarily be glad to get as many courses of special subject matter for teachers as possible, provided they are adapted to their end. It would follow, also, that the department of education should have the right to suggest changes of method and of subject matter in these special courses as well as the right to some voice in the selection of the instructor from among the available members of the academic department concerned.

3. Such special courses should be announced primarily in the bulletin of the department or school of education, and if announced elsewhere should be specially designated as given in or for the department or school of education.

4. The right to initiate and control implies also the obligation to finance a course. Therefore all teachers of courses accepted by the education faculty and announced in the bulletin as especially for teachers should draw a proportionate share of their salary from the education budget. This arrangement will have the double advantage of (1) giving the academic instructor a sense of responsibility to the department of education and (2) of making the education faculty reasonably conservative in initiating or accepting special courses for teachers.

5. Cooperation with, responsibility to, and the receipt of salary from the department of education should imply some official connection with that faculty. Just how close that connection should be—whether it should constitute full membership, with the right to vote on all matters of policy; whether it should grant only the right to discuss and recommend; whether it should limit the instructor to the right to attend only occasional faculty meetings in which students' work is discussed; or whether it should stop short with the privilege of advising students personally as to their work in his special course—does not appear from the data submitted. For the present, therefore, the extent of the participation of the special academic instructor in the affairs of the education faculty must be determined by local conditions.

6. Courses in special method should be in the same hands as the supervision of practice teaching. The intimate interdependence of special method and practice teaching is implied in the attitude of three of the groups discussed above, viz: (1) Those who would keep courses in method and supervision of teaching wholly within the education faculty, (2) those who would secure both through cooperation with the academic departments and (3) those who would delegate both functions to the high-school faculty in which the practice teaching is done. Only 4 of the 21 who gave constructive suggestions imply the separation of supervision and special method. The essential interdependence of these two important aspects of teachers' training seems to the writer almost axiomatic, whether teaching is to be regarded as the application of the principles of method, or whether special method is to be regarded as the organization of the experience gained in teaching.

Eliminating the suggestions which violate any of the above principles, and ignoring certain differences as to minor details, we may reduce the constructive suggestions of our contributors to three distinct schemes.

1. No cooperation whatever with academic departments. In this scheme the academic departments give only the academic courses which they offer for students of all departments regardless of their

avocational aims, while all special courses for teachers and all supervision of teaching are kept within the education faculty.

The advantages of such a plan are:

(1) Complete control of all professional work and the opportunity to develop a professional consciousness without interference.

(2) Freedom from outgrown academic traditions as to educational values and principles of method which eliminates the evil of conflict between the fundamental principles of general and special method, on one hand, and between special method and criticism of teaching, on the other hand.

The objections to the scheme are equally obvious:

(1) Unless the education faculty includes the teachers of the practice school there is the objection:

(*a*) That special method and supervision of teaching are artificially separated if the latter is in charge of the practice school teachers, or

(*b*) That supervision becomes academic, formal, and lacking in dynamic force if it is exercised by the education faculty alone.

(2) It fails to get any cooperation from the academic departments which through lack of sympathy keep many of the prospective teachers majoring with them out of the department of education.

2. Cooperation with the academic departments both for courses in special method and for supervision of teaching. This is probably the most practical of all the schemes proposed for the present conditions under which most departments of education are compelled to work.

Its advantages are:

(1) It secures the cooperation of the academic departments (at least theoretically) and forestalls the establishment of rival courses.

(2) It preserves the natural interdependence of subject matter and method, on one hand, and of theory and practice, on the other hand.

(3) Experience in supervision may react so as to vitalize the content and improve the method of the subject matter courses in the academic departments.

(4) It puts the education faculty in a position to appeal for concessions and adjustments for which it could not otherwise ask with any reason or hope of success.

But it is impossible to overlook some unmistakable objections to this plan:

(1) It is rarely, indeed, that the holders of academic chairs have had either the training in educational theory or the practical experience in teaching in elementary or secondary schools essential in the organization of a course in special method or in constructive criticism of teaching.

(2) Extreme specialization in advanced subject matter is likely to have given the academic specialist a warped perspective in the determination of relative educational values of subject matter within his own field, for purposes of secondary or elementary education, or as between his subject and other subjects of the curriculum.

(3) There is the danger that the best qualified members of the academic department will be more interested in research or in the advanced courses of the department and will therefore give only perfunctory attention to the education courses, or worse still, intrust them to poorly prepared or inexperienced subordinates.

3. Both the courses in special method and the supervision of teaching conducted by heads of the several departments of the school in which practice teaching is done, who are made regular members of the education faculty. This involves the limitation of the academic departments to subject matter courses as in the first scheme discussed above, but it differs from that plan in the utilization of the training school faculty for methods courses and supervision. There is much to be said in favor of this plan, especially in institutions which have well-organized practice schools or in urban communities which can afford to employ well-trained and specially qualified teachers in the public elementary and secondary schools.

In favor of this plan are the following considerations:

(1) It has both the advantages claimed for the first of the three plans under consideration.

(2) It insures a closer organic relation between the courses in general educational theory and the actual teaching experience of the students than any other plan.

(3) It avoids the danger of making the work in special method formal and academic and insures a greater concreteness and vitality through closer correlation with the practice work.

(4) It avoids the three objections offered to the plan of cooperation with academic departments.

(5) It places both method and supervision in charge of teachers who are specialists and whose main interests lie in the field of this work, and who are able to adapt it to the actual conditions and standards under which teachers must actually work better than could any teacher whose interests are chiefly academic and in a higher field. That is, it projects the preparatory work on the plane and in the field where the actual professional service is to be rendered later.

Some of the weaknesses of this plan are indicated in the following points:

(1) It fails to secure the cooperation of the academic departments—an objection offered to the first plan discussed.

(2) It separates the special method from the advanced subject matter of its department and thus is deprived of the advantage of specialized scholarships—unless, of course, teachers may be secured for the supervision work who have specialized in the academic aspects of the work as well as in education. It is thus open to the criticism of sacrificing scholarship to professional interests.

(3) The employment of teachers in secondary or elementary schools to assist in the work of preparing teachers in university departments has the appearance of lowering the standards of the university. The obvious reply is that these teachers must meet the best university standards as to training and experience; an ordinary secondary teacher could no more do this work than he could occupy a university chair of physics or Greek.

THE RESULTS OF PRACTICE TEACHING ON TEACHING EFFICIENCY.

By H. G. Childs.

During the six years covered by this investigation, 124 students have completed a course in practice teaching in the Bloomington (Ind.) High School under the supervision of critic teachers in the departments of English, history, mathematics, botany, geography, and zoology.

During the first three years of this period the course was completed in 12 weeks. Because of this, three separate student groups were able to receive training during any year. This accounts for the relatively large enrollment in these courses for these years. For the past four years the work has been carried on on the semester basis.

During the year 1913–14 practice work was offered in but one department, history. During the year just closed practice teaching has been offered in English, history, and botany. In the history department, however, the critic has devoted but one-half year to the work.

The table following indicates the distribution of practice teachers by departments:

Numbers by departments.

Date.	English.	History.	Mathematics.	Botany.	Geography.	Zoology.	Total.
1908-9	13	4	7	1	0	1	26
1909-10	16	2	7	2	0	0	27
1910-11	11	6	2	3	1	0	23
1911-12	9	3	4	4	0	0	20
1912-13	13	3	2	1	0	0	19
1913-14	0	9	0	0	0	0	9
1914-15	9	4	0	2	0	0	15
Total	71	35	22	13	1	1	139

PURPOSES OF THIS STUDY.

The purposes of this study were to determine (1) the valuation the teachers who had taken the practice teaching placed upon it as an aid in later teaching; (2) the estimate city superintendents place upon the quality of teaching done by our practice teachers without previous experience during their first year in the public schools as compared with other teachers.

VALUE OF PRACTICE TEACHING AS ESTIMATED BY THE TEACHERS.

Letters of inquiry were sent to 115 of the 124 teachers who had completed the practice course up to June, 1914. The remaining 9 could not be located. Eighty-one replies were received, and 6 letters were returned unclaimed. The remaining 28 either did not care to reply or neglected to do so.

The 81 replies received indicate that 79 of these practice teachers entered the teaching profession after graduation or leaving the university. One is continuing her work as a graduate student at Indiana University, and one married shortly after completing the practice work.

Of the 79 who entered the teaching profession, 41 had experience in teaching previous to their practice work and 38 had no such previous experience.

The following indicates the replies of these 79 teachers to item (1) of the letter, which reads as follows: "Will you write frankly whether you consider the course in practice teaching has been of much, moderate, or little benefit to you as a teacher."

Teacher's estimate.

	Much.	Moderate.	Little.	Total.
1. Teachers with previous experience in teaching	35	5	2	41
2. Teachers without previous experience	26	2	0	38
Total	69	7	3	79

Six of these teachers stated that this course was the most valuable one they had taken in the university. Eight others spoke in extra-superlative terms, such as: "Very much," "of the greatest benefit," "invaluable," etc.

From the above it is apparent that the testimony of the teachers themselves overwhelmingly attests the value of practice teaching.

COMPARISONS BY SUPERINTENDENTS.

To secure further evidence of the value of practice teaching, letters were sent to superintendents to whom our practice teachers had gone for their first teaching after taking the practice course. As it seemed impossible to determine whether a teacher's success was due to his previous teaching experience or to his practice work, inquiries were sent out regarding only those teachers with no previous teaching record.

In the letter superintendents were asked to rate teachers on their first year's work as "superior," "above average," "average," "below average," and "unsatisfactory" as compared with all other teachers

in the teaching force of the school, and also to make a similar comparison of the teacher in question with other inexperienced teachers in their teaching staff.

Thirty-eight teachers without previous experience replied to one inquiry. In nine of these cases the superintendent with whom they first taught could not be located. Twenty-nine letters were sent to superintendents and 19 replies were received indicating the following ratings:

Superintendents' ratings.

	Compared with all teachers.	Compared with inexperienced beginners.
Superior	3	6
Above average	7	8
Average	7	4
Below average	2	1
Unsatisfactory	0	0
Total	19	19

This tabulation indicates that 10 of the 19 teachers were decidedly above the average of all teachers in the teaching staff; 17 of the 19 were equal to or above the average of all; but 2 were below average, and none were reported as unsatisfactory. The comparison with other teachers with no previous teaching experience is still more striking, as 14 of the 19 were rated decidedly above the average; 1 only was rated as below average, and none were rated as unsatisfactory.

CONCLUSIONS.

Although our data are too meager to generalize upon too broadly, the above facts would seem to warrant the conclusion that in the judgment of superintendents of schools, as attested by their ratings, one semester of high-school practice teaching under a competent critic produces a more successful teacher than does the two, three, or four years of schoolroom experience of the teacher not so trained.

The testimony of the teachers themselves is almost unanimous in favor of practice teaching.

THE RESULTS OF PRACTICE TEACHING ON THE PUPILS TAUGHT.

By W. S. GRAY.

The purpose of this investigation was to determine the efficiency of pupils who had been taught by student teachers as compared with the efficiency of public-school pupils. This question is an important one, because the efficiency of instruction in training schools is seriously questioned in many centers where practice-teaching facilities are desired. In order to secure information on the point in question, the standing of training-school pupils was compared with the standing of public-school pupils during the first year in high school. The sources of data were the records of 1,500 pupils entering high school, of which 430 were records of pupils from four normal training schools of Illinois and from the elementary school of the University of Chicago, and 1,070 were records of public-school pupils.

The initial study was made in 1913. It included records of all pupils entering four high schools in September, 1911, and September, 1912. The computations were based on the average records of pupils in all subjects during the first semester in high school. Records for different schools were not combined because of differences in school conditions and methods of grading.

Table 1 presents the results in summary form. The letters A, B, C, and D in the horizontal row at the top of the table refer to the four high schools. N refers to normal training school pupils and P to public-school pupils. The numbers in parentheses after N and P refer to the numbers of pupils involved. The numbers to the left of the table refer to the five quintiles into which the records of schools A and B were divided. The letters between the summaries for school B and school C refer to grades given to pupils in schools C and D. The entries in the table give the percentages of training-school pupils and public-school pupils in each group. The average grades are given at the foot of the table.

TABLE 1.—*Summary of records of pupils in four high schools.*

Quintiles.	A		B	
	N (29).	P (52).	N (83).	P (113).
1	35	11	15	23
2	24	18	22	18
3	17	22	24	19
4	24	18	20	20
5	0	31	19	20
Average	81	71	78.3	78.7
Grades.	**C**		**D**	
	N (73).	P (75).	N (19).	P (51).
A	3	5	5	17
B	23	24	42	41
C	15	28	37	25
D	23	24	16	17
E	33	19	0	0
F	3	0	0	0
	D	C	B	B

The table shows the following facts:

(*a*) Training-school pupils are superior in school A, as shown by the averages and by the percentages of pupils in quintiles 1 and 2.

(*b*) Public-school pupils are slightly superior to training-school pupils in school B.

(*c*) Public-school pupils are somewhat superior in schools C and D.

(*d*) Study of 1913 reveals distinct superiority of training-school pupils in one high school and slight superiority of public-school pupils in three high schools.

Table 2 presents separate summaries of the autumn, winter, and spring term records of a class entering high school B in September, 1915, and a summary of the autumn term records of a class entering the same high school in September, 1916.

TABLE 2.—*Records of pupils entering high school B in September, 1915, and September, 1916.*

Quintiles.	Autumn, 1915.		Winter, 1915-16.		Spring, 1915-16.		Autumn, 1916.	
	N (23).	P (26).	N (20).	P (20).	N (20).	P (25).	N (28).	P (39).
1	17	23	20	19	25	16	22	18
2	22	19	10	27	15	24	22	20
3	17	19	25	19	15	24	26	19
4	17	23	20	19	20	20	17	20
5	27	16	25	16	25	16	13	23
Average	80	81	80	82	80	81	80	79

Table 3 presents separate summaries of the first-semester records in high schools E for 1915 and 1916. The records are summarized

in terms of the general averages and of the grades in English, algebra, and general science for 1915, and in terms of the general averages and of the grades in English, algebra, and ancient history for 1916.

TABLE 3.—*Records of pupils in high school E for 1915 and 1916.*

IN 1915.

Quintiles.	Average.		English.		Algebra.		General science.	
	N (10).	P (28).	N (10).	P (28).	N (10).	P (28).	N (10).	P (28).
1	30	18	20	21	30	18	40	13
2	20	18	20	18	20	18	40	9
3	20	18	20	18	30	14	10	22
4	30	18	30	18	10	25	10	26
5	0	28	10	25	10	25	0	30
Average	85	82	87	86	83	80	88	81

IN 1916.

Quintiles.	Average.		English.		Algebra.		Ancient history.	
	N (22).	P (19).	N (22).	P (19).	N (22).	P (19).	N (22).	P (19).
1	9	32	14	26	14	26	18	21
2	23	16	14	26	18	21	14	26
3	18	26	27	17	23	21	18	26
4	23	16	31	5	18	21	23	16
5	27	10	14	26	27	11	27	11
Average	84	86	90	92	84	87	83	86

Table 4 presents separate summaries of the records of pupils entering high school C in September, 1915, February, 1916, and September, 1916.

TABLE 4.—*Records of pupils entering high school C in September, 1915 and 1916.*

Quintiles.	September, 1915.		February, 1916.		September, 1916.	
	N (15).	P (12).	N (17).	P (10).	N (16).	P (13).
1	31	8	35	0	12	31
2	23	17	12	30	19	23
3	16	25	12	30	12	23
4	15	25	12	30	32	8
5	15	25	29	10	25	15
Average	86	85	86	84	85.5	87

Averages of three entering classes:

46 normal-school pupils	86
35 public-school pupils	85.5
25 tuition pupils	86

Tables 5, 6, and 7 present three of a series of studies which has been made by Principal Johnson, of the high school of the University of Chicago, to determine the relative standing of pupils from the Uni-

versity Elementary School and from public schools. The following quotation explains the organization of the table:

It is obvious that if the pupils from the elementary school were in all respects like those from other schools, a certain percentage of them should be distributed through each quintile in each of the subjects. Thus, since there are 213 taking English and 69 of them come from the elementary school, we might expect 32.4 per cent of each quintile to be from the elementary school. Table 5 shows in detail how far the facts depart from this expectation. In the first column of figures at the left of Table 5 is recorded the total registration in each subject. In the second column the number of pupils from the elementary school is recorded. In the third column is shown the percentage of University Elementary School pupils in each subject. In the other columns appear the variations in each subject from the normal or expected percentage. In the first and second quintiles an excess represents an unfavorable showing for the University Elementary School, while a deficiency (—) represents a corresponding favorable showing; in the fourth and fifth quintiles an excess represents a favorable and a deficiency an unfavorable showing.

TABLE 5.—*Averages in different subjects for 1910–11.*

Subjects.	Total pupils.	University Elementary School pupils.	Per cent.	Quintile.				
				1	2	3	4	5
English	213	69	32.4	−18.4	4.8	11.8	10.5	−8.6
Latin	161	59	36.6	11.8	−2.7	3.3	15.5	−1.6
Mathematics	206	67	32.5	−18.2	−12.7	6.5	−5.7	5.0
Science	141	27	18.8	−2.1	−12.7	−9.0	2.6	13.3
French	38	38	79.2	−6.5	−7.3	−1.4	9.7	−1.4
Drawing	201	65	32.3	.6	−2.3	−2.3	10.2	−4.1
Total	970	325	33.5	−10.3	.9	3.3	6.6	−.1

TABLE 6.—*Averages in different subjects for the first semester, 1913–14.*

Subjects.	Total pupils.	University Elementary School pupils.	Per cent.	Quintile.				
				1	2	3	4	5
English	68	34	50.0	−7.1	14.3	0.0	−19.2	11.5
Latin	48	28	34.2	13.2	15.8	35.8	12.5	−32.0
French	19	14	73.7	−25.7	20.3	1.3	1.3	−7.0
German	27	17	63.0	−13.0	20.3	17.0	3.0	−23.0
Mathematics	63	31	49.2	−26.1	10.7	27.7	25.8	−15.9
Total	225	124	55.1	−16.8	8.7	16.6	3.0	−12.2

TABLE 7.—*Averages in different subjects for the first semester, 1914–15.*

Subjects.	Total pupils.	University Elementary School pupils.	Per cent.	Quintile.				
				1	2	3	4	5
Latin	74	32	43.2	−3.2	−30.6	3.4	23.4	13.9
English	95	44	46.3	1.0	−9.5	16.9	−4.2	−4.2
Science	56	10	18.2	−.1	−1.0	−1.0	−9.1	9.1
German	32	23	71.9	−20.0	13.8	14.7	14.7	−5.3
Mathematics	93	42	45.2	−3.1	−8.4	2.2	4.8	4.8
Music	95	44	46.3	−4.2	4.2	1.0	11.6	4.2
Physics—C	93	44	47.2	−20.9	−10.4	.5	5.3	21.7
Total	537	239	44.5	−5.9	−9.6	4.5	6.4	6.0

These data show the following conditions:

(1) That judging upon the basis of the standings of pupils, the claim made that the effects of practice teaching on pupils taught are injurious, lacks substantiation.

(2) That judging from the same basis, no marked advantage accrued to either training school or public school pupil. That is, the efficiency of one school was about as great as the other.

(3) That on the same basis, the claims of superiority made by either type of school lack confirmation.

BRIEF DESCRIPTIONS OF COMPLETELY ORGANIZED SYSTEMS OF PRACTICE TEACHING.

The plan of organizing practice teaching varies greatly in different colleges and universities of the country. Rather detailed description of the plan in 14 institutions follows. The tendency everywhere is to make provision for practice teaching. In the colleges of agriculture and mechanic arts it is quite common to make use of the school of agriculture of secondary grade upon the campus. This plan is followed in the College of Agriculture, University of Minnesota. Regular classes in the school of agriculture have been handled in full by students in education desiring the opportunity for practice teaching. At the Kansas State Agricultural College the school of agriculture contains 500 pupils, the principal of the school is an associate professor in the department of education, and the work of the school is used regularly for observation and practice teaching. At the Iowa State College of Agriculture and Mechanic Arts, most of the work is done in the Ames public schools. The home economics work from the fifth grade through the second year high school is directly in charge of the critic teachers furnished by the college and the teaching is done by senior home economics students who are preparing to teach. The agriculture in the Ames high school is also in charge of an assistant professor of the department of agricultural education and the work is used constantly for observation and practice teaching purposes. The director of practice teaching in home economics is an associate professor in the department of agricultural education. Provision is being made for observation and practice teaching opportunities on the campus to supplement the work being done in the public schools.

Southwestern University, Georgetown, Tex., has a system which includes its own secondary school. It serves very well the community as a high-grade secondary school and the college as a laboratory for teacher training. The school has been a source of revenue to the college, a possibility in such communities. The management of the work is in the hands of the professor of education.

Brown University was one of the first institutions, if not the first, to place practice teaching for secondary teachers upon a graduate basis. This makes possible a high-grade type of training quite impossible in institutions in which this is a part of the undergraduate work. (See bibliography.)

Harvard University has developed a cooperative system in which it utilizes the public schools. A high grade of work is being done, and it is increasing in scope.

Iowa State Teachers College combines its training school with the school system of the town, and the town school in one district thereby becomes the training school. This is a possibility in any community.

Miami University has developed a high school under its own control. The attendance is growing. The supervision of the practice work is excellent.

Ohio State University has developed a system of cooperation with the public high schools of the city of Columbus, Ohio. It also utilizes some of the high schools in the near-by towns, particularly for practice work in home economics. The supervision is exercised jointly by the regular teachers and by regular supervisors from the staff of the college of education. The work is developing very rapidly, partly as a result of recent State legislation and partly because of the ability of the college to provide actual high-school facilities for this training.

The School of Education of Iowa State University had, until recently, an organization very similar to that utilized by the school of education at Indiana University. Now a complete reorganization is in progress.

The detailed statements of the work at various institutions follow.

BROWN UNIVERSITY.

By W. B. JACOBS.

Brown University began the work in practice teaching for secondary school teachers in 1895. The work at Brown University has consequently been pioneer work and has had over 20 years of successful operation. During these years many modifications have been introduced, but the fundamental principles adopted in the beginning are still maintained. These are—

1. Practice teaching should be open only to graduate students; that is, students who hold a bachelor's degree. This rule is inflexible and has never been broken. Brown University looks askance upon the custom which has developed of including practice teaching and extended professional preparation as part of the four years' work for the first college degree and regards it as a lowering of standards.

2. Practice teaching should be under actual schoolroom conditions. Hence Brown University uses for its practice teaching the public and private secondary schools of the city of Providence and neighboring cities and towns.

3. Practice teaching should include the continuous instruction and control of a class for a long period. At Brown University the amount of practice teaching required varies from a minimum of 5 periods a week to 15 periods a week for one year. Student teachers teach very few classes, but they teach them continuously for a semester or a year. After many trials it has been found best to limit the student teachers to one or two subjects. To give a few sporadic lessons before a class is one thing; to teach a subject continuously is quite another matter.

4. Practice teaching must be under the continuous direct or indirect supervision of an experienced teacher who knows the school, the class, and the detailed progress

subject taught. Hence all supervising teachers at Brown University are selected from the experienced teachers of the schools. Each student teacher has one supervising teacher and each supervising teacher one student teacher. The work is strictly individual.

5. Practice teaching must be closely correlated with the university work. At Brown University supervising teachers are selected by the university and paid a small remuneration. Each student teacher is visited once a week by the professor in charge of the practice teaching and private conferences are held. He also meets once a week in a general conference all the student teachers. Plan books for the past week are presented and discussed and later returned to the student teachers. Student teachers are at the same time pursuing other courses (1) in education, a course in secondary education and a seminar in current educational problems, and (2) in departments allied with the subjects they are teaching.

Student teachers who teach more than five periods a week usually receive some remuneration for their work from the school. In the case of the city of Providence this is provided for by an agreement between the university and the city of Providence. In other cases it is arranged as the cases arise. Student teachers who have shown themselves efficient are assigned other classes under supervision. For this work they receive remuneration. The work then becomes closely similar to what is known as "part-time work" in vocational education.

Graduate students who are admitted to the practice teaching at Brown University usually have taken as undergraduates four semester courses in education. These courses are: History of education, principles of education, educational psychology, and general method. In the last course there is some systematic work in observation and some teaching of the class by members of the class; for this last purpose the class is divided into sections of about 10 each.

6. The last principle is one which is fundamental and appears in all of the work. Practice teaching must not be an injury to the school or to the pupil, but rather a benefit. Hence the student teacher is called upon freely to assist the supervising teacher or the principal of the school in doing a limited amount of clerical work, work with individual pupils, or other work which can be assigned with profit to the student teacher and to the school alike. The student teacher becomes to all intents and purposes a part of the school staff, subject to regulations as other teachers and working as the other teachers are in harmony with the general purposes and spirit of the school.[1]

University of Chicago.

By A. R. Mead and W. S. Gray.

Practice teaching is a requirement for practically all persons who are candidates for a degree in education. This teaching is done, in most cases, in the University High School, an integral part of the School of Education. Some other teaching facilities are furnished by work in social settlements and private institutions. The University High School charges a tuition fee of $200 a year. It has a faculty of about 40 and an enrollment of about 400 children. In the high school the practice teaching is most thoroughly organized in mathematics, history, English, science, household arts, and home economics. The school furnishes practice teaching facilities in practically all subjects of the secondary curriculum. It is distinctly understood that this high school is to be used for experimentation, observation, and student teaching by the School of Education. The functions of this school and the effect of the work on its pupils are thus described:

The University High School aims to perform a double function. For its pupils it seeks to provide the best possible opportunities for education during the secondary period. For the School of Education, or more broadly speaking, for the University

[1] From School and Society, Vol. III, No. 67, pp. 533–535, Apr. 8, 1916.

of Chicago, it serves as a laboratory for the solution of educational problems. That there is no conflict between these aims the experience of the past nine years has made clear. That the practical demands of present education systems are not ignored is shown by the fact that during this time 570 graduates of the school have entered college or engineering schools. On the other hand, both in the general organization and administration of the school and in the matter and method of classroom instruction, the demands of the best educational thought and scientific advance have found expression. A school whose officers and teachers are students of the educational problems connected with their work is likely to furnish the most favorable conditions for the development and training of its pupils.—(High School Bulletin, 1913-14.)

The general administration of the work is shown by the following regulations:

GENERAL REGULATIONS.

Requirement for graduation.—Two majors of practice teaching completed with grades of C or better are required by the faculty in all undergraduate courses. Each major must include at least 50 hours of contact with the children in the classroom, laboratory, or field. During this time the student teacher must teach at least 15 lessons. This is a minimum requirement, however, and where it is possible to administer it the teaching of more lessons will be required. Ordinarily, practice teachers in the elementary school will teach from 30 to 40 lessons in each major.

Prerequisites for practice teaching.—The prerequisites for practice teaching in the high school are as follows:

1. General Introduction to Education. This course consists of a series of lectures, readings, and discussions introducing the students to the general problem of education and to the best sources of information and methods that lead to a scientific study of them. In addition to the work outlined above, the students make a large number of visits to schools in order to make a careful study of school organization and classroom practices. The results of these observations are written up and reported in class. In this way the inexperienced teacher secures a first broad outlook on problems of teaching.

2. Methods of Teaching in High Schools. This course is designed to introduce prospective high-school teachers to the specific problems which they will have to meet in connection with their future work. The course deals with such problems as the selection and arrangement of subject matter; the routine phases of school keeping; methods of learning involved in various school subjects, with corresponding methods of teaching; methods of securing interest and attention, of providing for individual differences, and of organizing supervised study; the use of textbooks and conversational methods; the planning and testing of teaching. In connection with the study of each of the foregoing topics, a series of classroom observations is carried on. The class and the instructor visit recitations in the University High School in order to secure concrete information concerning the problem under consideration. These observations are then made the basis for class discussions in the lessons which follow. Plan writing is emphasized. As nearly as possible, the student is introduced to all the general problems which underlie expert teaching.

3. A Special-Methods Course in the Subject to be Taught. The special-methods courses deal in a very specific way with the problems of teaching the respective subjects. In addition to the classroom work, directed observation has been introduced in order to bring the student in as close touch as possible with the work of the classroom. Directed observation is carried on in the special-methods classes in English as follows:

To each class in English in the University High School is assigned one student, a college senior, from the special-methods course. This student participates in the work of the high-school class in two ways: First, he is considered a member of the class in regular standing, being called upon to prepare the subject matter the class is considering, and called upon to recite upon that subject matter as is any other member of the class; second, the supervised observer becomes an apprentice, working in the actual

teaching problems of the class under the personal direction of the high-school instructor. From time to time he is assigned duties, like the reading of a set of themes, the discussion of these themes in class, conducting part of a recitation on an assigned passage in literature. He is in consultation with the high-school instructor in the preparation of plans, and has unlimited opportunity to see the inside workings of classroom procedure.

4. A general average of "C" or better in all academic work is required in practice-teaching courses. Failure to use good oral and written English disqualifies students from continuation in practice-teaching courses. In all cases, applicants for practice-teaching privileges in the high school must have qualifications in the subject to be taught satisfactory to the department which is concerned in the College of Education.

THE CONDUCT OF PRACTICE TEACHING.

1. *General purpose and character.*—The purposes of this work are (*a*) to help students to appreciate educational theory by themselves putting it into practice, and (*b*) to train them in those practical adjustments which constitute effective teaching. Generally speaking, the sooner a student teacher can be prepared to do some effective teaching the better. Observation which follows some attempt at teaching is more valuable than that which precedes teaching.

2. *Duties of student teachers.*—(*a*) The student is responsible for understanding and appreciating the work of the quarter in the subject assigned for practice and any other phases of the curriculum of the school or the work of the grade that the critic teacher desires to take up.

(*b*) The student is responsible from the beginning for participating and assisting in the activities of the room, *e. g.*, correcting papers, gathering materials, assisting individual pupils, etc.

(*c*) As a rule the student will be assigned at first some easy subtopic in a larger unit and allowed to teach from one to five lessons, thus being initiated gradually into the work.

(*d*) The number of periods of teaching will be increased as the student becomes capable of assuming them.

(*e*) Student teachers are expected to attend critic meetings which are arranged by critic teachers. These will be frequent during the first part of the quarter.

(*f*) Student teachers should get ready to begin teaching as soon as possible, and are held strictly accountable for expected results.

(*g*) The student is primarily responsible to the critic teacher in whose place he teaches. He may be referred to the appropriate department in the College of Education for assistance in securing the material needed in preparation for his teaching. If the teaching is in the elementary school, the student is also responsible to the supervisor in whose group of grades he teaches.

3. *Reports by critic teachers.*—Reports are filed with the dean from the critic teacher. These reports will be made the basis not only for credits in the course but also for later recommendations to positions.

The points outlined below are considered in making these reports, which characterize very definitely and in detail the individuality of the student teacher. This does not mean that the critic teacher reports on each point in every case, but emphasizes those points that are especially significant for the particular student teacher concerned. The critic also adds comments on any other notable aspects of the student's work:

(1) Preparation of lessons.
(2) Skill in conducting recitation.
(3) Ability to manage children.
(4) Personal fitness for teaching.
(5) General rating of teacher.

4. *Departmental practices.*—In addition to the general regulations outlined above each department works out a series of suggestions and devices in regard to practice teaching. The following suggestions have been worked out by the mathematics department in the University High School:

(*a*) The student's work is of the following types: First, active teaching, including work with individuals who need special assistance; supervision of study classes, etc.; and second, routine work, such as calling the roll; collecting and distributing papers; reading and grading reports, examinations, etc.; supervising examinations; keeping records, etc.

(*b*) It is aimed to start the student in his work as soon as possible in order to give him the maximum amount of time for developing skill. If there is only one practice student in a class, that student may teach a part of each day; if there are several students, it is not possible to give daily opportunity to teach. The latter situation rarely arises.

(*c*) The first lesson taught is usually very short, about 10 minutes in length. It may be the development of a theorem or a formula. Method, aim, and the time limit are usually agreed upon beforehand by the student and critic teacher. After the lesson has been taught, the critic teacher meets the practice student to emphasize the strong and weak points of the student's teaching and to make constructive suggestions where help is needed.

(*d*) As teaching power develops the duration of the teaching periods is lengthened and the student's responsibilities are increased along all lines. As soon as the student shows sufficient power he is given charge of the class for the entire class period.

Teachers College, Columbia University: Types of Practical Work.

By Bonnett Stevens.

Practical work in various forms has been carried on by Teachers College for many years, but the nature of the work has changed somewhat in recent years, owing to the different opportunities offered in the secondary field.

The types of practical work now recognized and for which credit is allowed in the various departments are the following: Supervised observation, supervised teaching, training in supervision, and experimental work.

I. Supervised Observation.

The college has two schools of observation—the Horace Mann School for Boys and the Horace Mann School for Girls—which are always open to students of special method and general method for observation of the work of experienced teachers. In addition to these schools of observation the students visit the public and private schools in New York City and vicinity where almost every phase of educational work may be found.

II. Supervised Teaching.

Having no high school of its own for supervised teaching, the college is developing several different centers of activity for different types of practical work. One in the high schools of New York City; a second in a group of suburban communities near New York; a third in Y. M. C. A. schools, night schools, settlement classes, etc.

In the city high-school center one opportunity for practical work is offered through the New York City plan of using teachers-in-training in high schools. This privilege is open only to graduate students whose academic qualifications in their several subjects of major interest meet the requirements set by the city. Previous experience in teaching is not required, but eligibility is measured by an examination given by the board of education. Candidates must devote to the work at least half of each school day for one semester. A student may elect to do practical work during either or both semesters, the maximum credit for which is a half course each half year.

The second opportunity for practical work is offered by a system of supervised observation and teaching in New York City and vicinity. Graduate students, with or without experience, who seem to the official advisers entirely to be qualified to undertake work of this nature, may be recommended to school principals to do practical work.

The suburban group is composed of high schools in near-by towns that can be reached by ferry and trolley within 30 or 40 minutes. By arrangement made separately by the boards of education of Leonia, Cliffside, and Englewood, N. J., and the dean of Teachers College, college students in limited numbers are permitted to serve as apprentices to the regular teachers for periods of five weeks each, rendering such service to the teacher of class as the teacher directs. During the five-week period of service the time of the college students is divided substantially as follows:

First week: Observation of class teacher and pupils in order to become acquainted with individual pupils and to know them by name, to become familiar with the teacher's methods as well as the text-books in use, and to study the children in the class who require special treatment.

Second week: Generally some form of active participation in the work of the class hour is permitted, including the following phases of practical work: Correcting papers and holding conferences with the pupils for consideration of the same; tutoring pupils who for one reason or another need to make up ground lost; gathering and presenting illustrative material for class use—material that is available in the libraries and museums of Teachers College.

Third week: If the general attainment of the student teacher warrants it, there is some teaching, beginning with a portion of a class period, as, for example, telling a story in German (last 10 minutes of the hour); developing the new lesson; presenting a general topic in history; some phases of oral composition.

Fourth and fifth weeks: Teaching, under supervision of the teacher and the college supervisors. The teacher leaves the novice with the entire control of the class and the discipline for intervals of time, as soon as it seems wise to do so.

PREREQUISITES AND CREDIT FOR SUPERVISED TEACHING.

In the School of Education the degree of B. S. or B. A. from an accepted college is prerequisite; in the School of Practical Arts, practical work is given to seniors and to graduate students. The professor in charge of the subject of the student's major interest must also be satisfied, before recommending the student for practical work, that the candidate has had, or is taking, suitable work in the general field of education and in the content of the subject the student is preparing to teach. The student must register for one full course in special method, one-half course in general method, one-half course in supervised observation and practice, the equivalent of which is about 75 hours of the student's time per semester. The time is divided as follows:

Time spent in practical work, 1 hour per day for five weeks—25 hours.

Hours spent in observation in other schools or classrooms, some preceding and some following the period of student apprenticeship in the classroom—20 hours.

Conference hour with supervisors, 1 per week for all practice students, meeting together—15 hours.

Preparation, personal conferences, etc.—15 hours and upward.

All inexperienced students are required to do practical work in partial fulfillment of the requirements for a Teachers College diploma as teacher of a special subject. The student must, however, first satisfy the professor in charge of his major subject regarding his intellectual, physical, and social fitness for teaching before he is recommended for practical work. These recommendations are made to the professor who has charge of the administration and supervision of practical work. When a student is assigned to a school he reports to the principal who instructs him in necessary school standards

and routine matters to enable him to fit into the school life without friction. The class teacher determines the nature of the practical work and the amount of actual teaching. If she finds the class work suffers in any way, through the presence of the teacher in training, she is at liberty to remove him, or to delay his teaching, or to change the nature of his work. The class teacher serves as adviser and friend.

Practice teachers are supervised by four different groups of experienced people; first, by the official group of college supervisors; second, by the principal of the school and the teachers, whose suggestions and criticisms are of inestimable value to the student teachers; third, by selected students of experience, who are candidates for diplomas as principals and inspectors of high schools; fourth, occasionally by professors in charge of the student's major subject—the subject that he is teaching.

In addition to this personal supervision, all practice teachers meet with the college supervisors for one hour every Friday afternoon in the semester for a general round-table conference. At intervals the student supervisors are called upon to offer criticism of the work of the student teachers, after which there is discussion of the nature of their supervision.

III. TRAINING IN SUPERVISION.

This field of practice is not yet fully developed but wherever practice teachers are at work there are excellent opportunities for training in the supervision of instruction. Each classroom may thus become a laboratory for two types of practical work. The pupils are in no way molested by the presence of a student supervisor, and the student teacher is benefited by having his work analyzed and criticized by some one from the practical field who is somewhat older than he in experience.

IV. EXPERIMENTAL WORK.

Occasional opportunities are offered for experimentation in adapting subject matter to the needs of particular groups of pupils and in trying out methods of presenting subject matter.

The Speyer School (formerly an elementary school for experimentation and practice belonging to Teachers College) reopened on February 1, 1916, as a city public school of junior high-school grade. Teachers College serves the school in an advisory capacity and is planning a series of experiments with the curriculum and with methods of teaching.

HARVARD UNIVERSITY.

By ROMIETT STEVENS and ALEXANDER INGLIS.

I. PRELIMINARY STATEMENT.

At present, courses specifically designed to train secondary school teachers are offered to seniors and graduate students.

II. COURSES FOR THE TRAINING OF SECONDARY SCHOOL TEACHERS AT PRESENT OFFERED.

1. No student is admitted to apprentice courses in secondary school teaching unless he has taken the general course in the principles of secondary education. In addition he is supposed to have taken courses in (*a*) the principles of education, (*b*) the history of education, and (*c*) general and educational psychology. Further, he is required to present evidence that he has manifested sufficient knowledge of the subject or subjects which he intends to teach in the secondary school. He is admitted to the apprentice teaching course at the option of the instructor in charge of that course with due reference to his personality and other qualifications.

2. The course in the principles of secondary education is so organized that during the first half year those who are planning to enter the course in apprentice teaching make systematic observation of teaching and class management in the secondary schools in

the vicinity of the university. During the two months or one month before the close of the first semester that observation is made in the class which the student will conduct during the second semester.

3. The course in apprentice teaching comes in the second semester; the work of the course consists primarily of actual teaching in one of the secondary schools in the vicinity of the university, but the class meets twice a week as a whole for the discussion of problems and principles of classroom practice definitely connected with the student's experience in his practice teaching. Principles of method are considered in direct connection with practice, so that theory and practice may be closely related.

III. THE OPPORTUNITIES FOR OBSERVATION AND APPRENTICE TEACHING.

1. *Observation.*—Within easy reach of the university are more than 50 different high schools with more than 1,000 teachers and enrolling more than 20,000 secondary school pupils. These high schools are of various types. All are open to observation by the students of the university, and systematic observation is required of prospective secondary school teachers enrolled in the division of education.

2. *Apprentice teaching.*—At present contract agreements exist between the university and the school committees of nine cities within easy reach of the university. Apprentice teaching is provided for in those cities by these formal contracts. The cities thus affiliated with the university are Arlington, Belmont, Brookline, Cambridge, Lexington, Medford, Somerville, Newton, and Watertown. The aggregate population of those cities is about 350,000, the number of high schools 14, the number of teachers about 400, and the number of pupils in the secondary schools about 10,000. Thus ample opportunity is afforded for apprentice teaching in some of the best secondary schools of the country. Further, among the high schools involved are manual training high schools, vocational high schools, technical high schools, and junior high schools. Practically all high-school courses are to be found exemplified in those cities.

3. No "model" school is conducted under the auspices of the division of education. In any case it is probable that the apprentice teaching would by preference be confined largely to the public schools. The division emphasizes particularly the value of apprentice teaching under conditions as normal as possible. Further, no single secondary school of the size desirable for model schools could satisfactorily provide for all the students preparing for positions in the secondary school.

IV.—THE ADMINISTRATION OF THE APPRENTICE TEACHING.

1. In accordance with the agreements made between the university and the school committees of the cities mentioned, candidates are assigned to practice teaching positions in the various cities after conference with the school authorities who have the right to reject any candidate for satisfactory reasons.

2. The student assigned to a position in any school, after a period of partial control and responsibility, assumes full responsibility of a single class during the last half of the school year, always under the supervision and control of the teacher assigned for that purpose. His period of service lasts for about 18 weeks and the number of periods which he teaches varies from 3 to 5 per week according to the subject, etc. Thus his classroom experience normally varies from 54 to 90 school periods.

3. The supervision and direction of the work of the apprentice teacher is shared by the teacher assigned for that purpose (usually the head of the department in the school), the principal of the school, and the college instructor with his assistants. By far the greatest share of the supervision rests with the teacher who is constantly in charge of the student's teaching.

V. ADDITIONAL PROVISIONS FOR OBSERVATION AND TEACHING.

1. Arrangements have recently been made by the division of education with the Boston school committee whereby properly qualified students may act as assistants to teachers in the high schools of Boston, assuming partial responsibility for a given class.

THE SCHOOL OF EDUCATION, UNIVERSITY OF CALIFORNIA.[1]

The school of education at the University of California has a cooperative plan with the city of Oakland, which supplies facilities for practice teaching. The one school utilized is a six-year high school beginning its work at the seventh grade on the old plan of eight-four years in grades and high school. The university agrees to pay sufficient salaries to keep the per capita cost of the school down to that for the entire city system of Oakland.

The supervisory staff consists of a member of the faculty of the school of education, the principal of the high school, and eight head teachers who are also supervisors.

The prerequisite work in education includes the following: (1) History of modern education, or history of American education; (2) high-school administration, or principles of moral education; (3) school management (may parallel practice teaching).

The prospective practice teacher makes application for the work upon a blank like that following:

[Front of card.]

UNIVERSITY OF CALIFORNIA—SCHOOL OF EDUCATION.

APPLICATION FOR PRACTICE TEACHING—EDUCATION 201.

..... Semester, 191... -191...

Date of application ....., 191....

Name.....

Residence teaching term..... Phone.....

Year of graduation {December / May} 191.... Degree.....

Majors: 1. ..... 2. ..... 3. .....

Minors: 1. ..... 2. ..... 3. ..... 4. .....

Photograph must be in before assignment is made.

Courses in philosophy and education completed previous to teaching term: .....

.....

Courses in education to be taken simultaneously with the practice teaching: .....

.....

Other courses in education to be taken: .....

.....

Teaching preferences:

1. ..... 2. ..... 3. ..... 4. .....

School activities you could supervise:

[Back of card:]

WEEKLY PROGRAM FOR THIS TERM.

	8.00	9.00	10.00	11.00	1.00	2.00	3.00	4.00
Monday								
Tuesday								
Wednesday								
Thursday								
Friday								
Saturday								

[1] Data furnished by Prof. W. W. Kemp and Prof. C. E. Pugh.

If possible, leave two consecutive, free hours between 9 and 3 o'clock throughout the week.

[To be filled in by the instructor.]

Assigned to.....School.
Subject.....hours.....room.....
Began teaching..... Finished teaching.....
Grade in instruction..... Grade in discipline.....
Remarks:

The application having been filed, the previous record of the student is investigated. If satisfactory, he is assigned for observation and practice to one of the department heads in the high school. When ready to teach, he takes charge of the class for the balance of the semester.

The term "practice of teaching" is used to include lectures, readings, conferences, observation, and actual teaching. The total credit is 4 hours. At the university the work covers the following items: (1) Lectures and reports; (2) term plans setting forth the work to be accomplished; (3) lesson plans setting forth in detail the aims, subject matter, and methods of a particular lesson or lessons; (4) observations and reports on observations; (5) conferences on lessons taught by practice teacher and observed by the instructor; (6) final report on work accomplished and rating of pupils; (7) a final paper exhibiting the candidate's ability to set forth the theoretical and practical aspects of a particular educational problem. The work at the high school consists of observations, conferences with supervisory teachers, and actual teaching.

School of Education, Indiana University.

Indiana University, like Iowa State University, is located in a small city. The organization of the work in the two institutions contains certain similarities, which will be evident from the description of the work at Indiana.

Bloomington, Ind., the seat of Indiana University, is a small city of nearly 9,000 population. In most cities of this size the high school faces the persistent problem of securing high-grade teachers without adequate financial resources to pay salaries large enough to attract such teachers. At Bloomington, even before the plan was in use at Iowa State University, a cooperative plan had been evolved by which Indiana University school of education utilized the high school for laboratory purposes in teacher training and the high school was enabled to secure very high-grade teachers. In general, the plan provides that the head of a high-school department (e. g., English) is at the same time the instructor in special methods in his specialty in the school of education, and at the same time the supervisor (critic teacher) of practice teaching in that subject. It is believed that this plan of close cooperation originated at Indiana University.

All of the practice teaching is under the general supervision of the associate professor of secondary education. Before a student is assigned to teaching, he must have met the following prerequisites: (1) Completed courses in principles of education (3 hours), secondary education, including administration and principles of teaching (4 hours), special methods of the subject to be taught (2 hours); (2) must have college credits in the subject to be taught amounting to 20 semester hours; (3) the assignment must have the sanction of the collegiate department concerned (e. g., the department of English), the sanction of the general supervisor, and of the critic teacher. Presumably the sanction of the local superintendent of schools is implied, although he is represented in the critic teacher. By such a plan the schools are protected from poorly prepared apprentice or practice teachers. Content, theory, and judgments as to other phases of ability have been given consideration. Further, such a plan guarantees continuity in the training of the teacher. The same person who gives the course in special methods supervises the actual teaching. (University Catalogue, 1916–17.)

The student visits the class for several days before he is allowed to take charge of the class. Meanwhile the regular (critic) teacher is doing the teaching. When conditions are favorable according to the judgment of the critic teacher, the student takes actual charge of the class. The period of teaching is usually one semester. The number of periods taught per week is usually five. Thus an equivalent of five semester hours of practice work is given the teacher.

After the practice teacher has taken charge of the class the supervisor visits the class almost daily for the first few weeks. Later, fewer visits are made. "After every visit the practice teacher receives an oral or written criticism, or both. The critic supervises the teacher's plans and outlines and holds a general conference with his group once a week. Each teacher is officially rated by the critic three times a semester, the teacher having been made familiar with the standards used at the beginning of the term and the results of each rating being discussed after it is made. Additional ratings are made just before the close of the term by the high-school principal and the professor of secondary education at the university."

The cost of the cooperative plan consists primarily of salary expense.[1] The first year the supervisor is paid $1,500, and annually thereafter $100 additional to the maximum of $1,800. The city school system pays 60 per cent.[2]

Teachers College, Louisiana State University.

As a result of the endowment of a teachers' college at Louisiana State University through the final distribution of the Peabody fund, that institution has recently organized work for the professional training of high-school teachers. The organization includes a "Demonstration High School" on the campus and under the direct control of the teachers' college. Pupils are admitted to the eighth, ninth, tenth, and eleventh grades. Two fees, which total $10, are charged to pupils attending this school.

Though the school is named the Demonstration High School, it includes practice teaching. The prerequisite work for practice teaching is as follows: (1) 18 semester hours in a major subject and "12 semester hours in two allied minors;" (2) 6 hours of educational psychology; (3) 6 hours in high-school management and instruction; (4) observation of teaching with three; (5) 3 hours of special method given by a selected instructor in the regular academic department; after this work the student is admitted to practice teaching. About 2 semester hours of actual class teaching is done, and about 1 semester hour of observations and conferences parallel with the teaching. Each teacher keeps a detailed record of his work, which record is open to the inspection of the supervisory force.

The supervision of the teaching is exercised jointly by the dean of teachers' college, the professor of educational psychology, and the principal of the high school.

About 30 student teachers per year are completing this work of practice teaching. Interest in this type of work is increasing. It is not possible to give any careful estimate of the cost, because of the shortness of time during which the practice teaching has been in progress. The attitude of the pupils and the attitude of the patrons are very good toward the school.[2]

Practice Teaching at the University of Minnesota.

By Raymond A. Kent.

Practice teaching for students in the college of education was begun in the fall of 1908. The work was done in a six-year secondary school maintained by the college on the campus of the university.

[1] Educational Monographs, Society of College Teachers of Education, No. VII, p. 41.
[2] Data furnished by Dean D. T. Powers.

In the fall of 1914 the work was reorganized. The university high school was moved into a new building especially provided and equipped for it and for the college of education. On account of limited funds, only the last four years of high-school work were continued.

THE UNIVERSITY HIGH SCHOOL.

Admission to the university high school is limited by the following conditions:

1. The applicant must not be over 20 years of age at the time of applying.
2. The applicant must not be a student at any other institution or in any other department of the university at the time when in attendance at the high school.
3. The applicant must present records of scholarship which show clearly that he has not done unsatisfactory work in another institution.
4. The applicant must present satisfactory credentials with respect to his character and previous conduct.
5. The university high school will not enroll more than 150 pupils at any one time during the year 1916–17.

In choosing the instructors for this high school a combination of three qualities is sought in each individual appointed. These qualities are:

First. Excellence of scholarship in the field which one's particular branch or branches represent.

Second. Excellence of method as a high-school teacher.

Third. Excellence in professional interest and ability. The individual must have shown the proper attitude toward the modern problems of education and must possess a high order of constructive critical ability of high-school teaching.

The college of education believes that a high school well organized, well taught, and well administered is a prime essential to practice teaching.

COOPERATION WITH CITY SCHOOLS.

A legislative enactment of 1913 and subsequent interpretation of the same by the State department of education requires every college and university graduate to pursue at least a semester of observation and practice teaching before being eligible to teach in any public school of Minnesota. This ruling resulted in a larger enrollment in practice teaching than could be assigned to such work in the university high school. Through the cordial cooperation of the Minneapolis public schools, arrangements were made whereby university students were assigned to practice teaching in the city schools. In 1914–15 this work was done in the various city high schools and to a limited extent in the seventh and eigth years in departmental class work. During 1915–16 the assignments have been limited to high schools, except in a very few cases, such for example as a beginning German class in an eighth grade.

1. *Prerequisites.*—The college of education believes that scholarship in the chosen field is the first essential to success in teaching. It therefore insists that no student in the university shall be allowed to enroll as a practice teacher, unless the department in whose field he wishes to teach recommends him.

In addition to scholarship, certain professional requirements are made. The ruling of the State department, above referred to, requires 12 semester hours of work in education in addition to practice teaching, and stipulates that at least 3 of these hours must consist of two courses in special method. The college insists that a special method course covering the subject which the student wishes to teach be pursued before the practice teaching is begun. Since students are seniors when they do practice teaching, and since the college requires 15 hours in education exclusive of general psychology, almost all have completed twelve hours in education, including general psychology, before practice teaching is begun.

2. *Content of course.*—What does the course entitled "Practice teaching" include in Minnesota? At least three things—(1) directed observation and (2) actual teaching (3) under supervision. For the present at least it seems highly advantageous for

students to spend from a week to 10 days or even two weeks in carefully directed, well-digested observation before they themselves begin to teach. The first lesson plans some make are the plans of the work in the recitations observed. The student begins teaching only after the critic is reasonably certain that the student has in mind clearly the object to be attained, and has presented a satisfactory plan of execution.

Again referring to the State ruling, it is supposed that each person, during the semester that he pursues the course in practice teaching, will conduct at least 36 recitations, or perform work equivalent thereto.

From the beginning there has been no real difficulty in supervising the work of the students practicing in the university high school. There is no high-school class not directly in charge of a regular high-school instructor. This instructor is in most cases the critic of the practice students working with her class. Personal interviews and group meetings, formal and informal, are easily arranged between the critic and her students.

The present plan gives to each critic in the university high school the supervision of all students doing practice teaching in her department, whether these students are assigned to the university high school or to city high schools. The critic visits each student as often as her time will permit. So far this task has not been so great but what each critic has been able to check the work of each student frequently and closely.

3. *Practice teachers' meetings.*—Supervision includes, besides visitation, group meetings held regularly. At these meetings the critic takes up with her students such matters as her judgment selects. In addition to the group critic meetings there are two general meetings of all practice teachers each month. Here are presented facts of general professional importance. Coherence, clarity, and lack of repetition throughout the work are gained through frequent conferences among the members of the faculty of the university high school.

4. *Checking results.*—The greatest weakness of methods and courses for training secondary school teachers up to date has been the failure to integrate this training with later actual practice. Standards, methods, and substance have been too far academically determined. The individual therefore found certain readjustments necessary when confronted by the actual problems of his later experience. Colleges of education stand in danger of becoming academic in training teachers for high school.

The college of education seeks to prevent this condition in three different ways:

First. It refuses to give a college grade in practice teaching to any one who for any reason shows that he can not teach high-school classes.

Second. The scale of rating by which practice teachers and practice teaching are to be judged is being made on the base of factors that appear during practice which count most for later success or failure. The scale of rating is by no means completed as yet. It is barely begun. Whether it will ever be so far completed as to stand without change is a question. It will approach completion only through several years of close study of the product which the college puts into teaching.

Third. This study will be accomplished through field checking. This checking has begun in a modest way. It seeks information from two sources—from the graduate of the college and from the supervisor of that graduate.

5. *Teaching assistants in public schools.*—The college of education in cooperation with the Minneapolis public schools has adopted a plan which provides for employing in the high schools a certain number of university graduates to be known as teaching assistants. The adoption of this plan is in essence the establishment in the Minneapolis public schools of a certain number of teching fellowships for graduate students. These teaching assistants receive compensation for their work in the school proportionate to the amount of time devoted to teaching; $300 for the first year, $400 for the second year.

For each assistant a definite couse, combining graduate professional study and teaching experience is outlined. Although the plan provides an abundance of teaching experience, the greater emphasis is thrown upon advanced professional training. Teaching assistants are on duty at the schools from 8.30 until 12.15. Their work is divided between teaching and assisting. During their first year they do not instruct more than two classes per day, that is, one-third of a regular teacher's teaching period. If they continue a second year, the portion of their time devoted to class instruction may be increased to three periods per day. Their work as teaching assistants is limited to the hours during which they are on duty in the schools, and no additional work other than preparation for teaching their regular classes is required of them outside of the above set schedule of hours.[1]

University of Missouri.

By Romiett Stevens and J. L. Meriam.

The school of education maintains a high school which serves largely as a practice school and an elementary school which serves largely for observation purposes. The high school enrolls approximately 150 students each year. The elementary school is limited to approximately 100 pupils. The professor of school supervision in the school of education is superintendent of both these schools. The high school has a principal devoting his full time to administrative and supervisory work, also a lady associate principal whose work is largely supervisory, but administrative in being in immediate charge of the girls of the school. In addition to the supervisory work of the superintendent and these two principals, there are a number of so-called teaching supervisors, varying from year to year. These supervisors are usually graduate students with a successful public-school experience, academic training in their own special subjects, and professional training in the school of education. These supervisors spend approximately one-half their time in the interests of the high-school work. They do some regular teaching and supervise practice teachers in their own departments.

In the elementary school there are five regular teachers, including one who serves as principal. All of the teaching is done by these regular teachers.

The students in the school of education undertake practice teaching in their senior year. They are expected to have already had considerable academic work in their own subject, also professional courses in educational psychology, theory of teaching, and the teaching of their own subject. However, these courses are not strictly prerequisites, and many such students take these courses parallel with practice teaching. These practice teachers devote one hour each day throughout the year to the teaching of their own subject. Preparation for such practice teaching requires from one to two hours or more for each hour of class work. These practice teachers are under the immediate supervision of the teaching supervisors and the superintendent. A meeting of these teachers is held once each week for instruction on general methods of the school and problems which are of common interest. At this time also teaching supervisors meet their groups of teachers for special problems.

Ohio Wesleyan University.

By A. R. Mead.

Education in this institution is the work of a department of a small college. The practice teaching done at this institution, as well as all work done in education, is in its beginning stages. At present all facilities for practice teaching are those of the subfreshmen classes. The following secondary subjects are included in this work: Latin (4 years); English (2 years); mathematics (3 years); physics (1 year); history (1 year); German (1 year). This group of students meets in college classrooms and has the use of all college facilities as other students.

[1] School and Society, Vol. IV, No. 82, pp. 140–144, July 22, 1916.

The amount of practice teaching done by the student teacher varies, but in a majority of cases it is 36 class periods of 50 minutes each, daily, taught consecutively. This is the minimum requirement.

No persons except seniors or graduate students are allowed to do this work. Besides regular college work, they must have had the following work in education: Education psychology (3 semester hours); secondary education, with emphasis on principles of methods (3 hours); special methods of the subject they expect to teach (2 hours); 18 periods devoted to observation of high-school teaching, and several periods of observation in class they will teach, immediately before beginning the work. In addition to the requirements in education, the student must have a good general scholarship standing in the subject to be taught, as well as have such courses as are required by the department concerned.

Before the student can begin teaching, several visits are made to the class, and the routine matters of the classroom are learned. When in the judgment of the supervising teacher the student is ready, the full work of the class is placed under the charge of the student teacher.

The supervision is exercised jointly by the department of education and persons from other collegiate departments that give special methods courses. As far as possible, instructors in the subfreshman classes are utilized for this work. The supervision consists in visiting the class taught by the student teacher, conferring with the teacher, the department of education, and academy instructor, and directing the work of the student teacher. If the student teacher can not control the class, another will take charge of the class and continue the work, but to this date no such cases have occurred.

The student teacher assigns the lessons, conducts the regular class work, keeps class records, attends to matters of sanitation, ventilation, and lighting, as far as possible, conducts quizzes, and makes reports, as the regular teacher would. The procedure is under the charge of the supervisor, but the content is that of the regular academy class work.

Upon completion of the period of teaching, the supervisor makes a detailed report.

UNIVERSITY OF NEBRASKA.

By A. R. MEAD and CHAS. F. FORDYCE.

The prospective secondary teacher is required to select work in at least two content subjects, consisting of a major of 24 to 32 hours, and a minor of 12 to 16 hours each. The grand total must be not less than 40 semester hours of such work.

The prerequisite professional work for practice teaching includes the following: At least 2 semester hours in special methods; 6 semester hours of general psychology; 3 of child study; 6 of history and science of education.

The Teachers College maintains its own demonstration and practice school, and has also utilized classes in an evening school conducted at the city Y. M. C. A. The training school of the college enrolled 175 pupils in 1915–16. The observation of teaching is carried on in connection with the training school. Each prospective teacher does this type of work one period a week for at least a semester. "After the members of this class (observation) have become familiar with the teaching activities observed, each takes charge of a class for actual teaching. The period of practice must continue at least one semester, but in many cases it is through the choice of the candidate continued a full year."

"In the teaching process the candidate is under a triple type of supervision: First, there is a careful supervision through the department of educational theory and practice, which represents general method in the technique of class instruction and class management; secondly, the student is under the supervision of the special department representing the chosen subject to be taught, as German, English, Latin, etc.; the third type of supervision is that under the control of the principal of the high school, who leads the intending teacher into the functions of school administration."

The special supervisors referred to above are "teachers who are experts in both subject matter and in method of presenting their subjects." They were selected by the academic department concerned at the request of the department of educational theory and practice and from active service in the public high schools of the State. There are such supervisors for the following subjects: Mathematics, German, geography, American history, European history, agriculture, and Latin.

There are about 150 candidates annually for the work in the practice school. In addition there are about 90 candidates for practice work in elementary subjects who do their work in the public schools of Lincoln.

University of Oregon.

By Romiett Stevens and Fred C. Ayer.

The University of Oregon carries on its practical work in the local high schools and in the university high school recently organized for both observation and practice teaching. Inexperienced students who desire to enter teaching are required to take practical work, consisting of a two-hour course in observation during the junior year, followed by practice teaching in the senior year. The observation course is prerequisite for practice teaching and consists of class work, assigned readings, reports, etc., and a minimum of 16 observations. As part of the observations each student visits a class in his chosen subject for three successive days, then prepares plans, and teaches the class for two days. This "breaking-in" process is considered distinctly valuable. The establishment of the university high school, which is to be primarily a demonstration and experimental school, makes it possible to provide for a series of type lessons taught by experts to be observed and analyzed by the students in observation. Practice teachers who are assigned to classes in the university high school will observe and assist the work of the regular instructor until the class is well started before being given charge, while in the local schools they are placed in charge from the first under close supervision by the university supervisor.

The prerequisites for practice teaching are: (1) Six hours work in education (including observation); (2) special academic training in the subject of the student's major interest; (3) the candidate must be a fully accredited senior and "have a record in grades measuring up to the standard set by the committee on appointments."

Printed instructions are given to students at the beginning of their work, so that there may be no misunderstanding regarding the administration of the work. The following excerpt is indicative of the plan:

Lesson plans and division of practice teacher's time.—The practice teacher taking work for full credit (five points) should devote 15 hours per week to the work. This shall include time in the schoolroom, laboratory, or field, in preparation and in conference; provided that at least five periods per week shall be spent in the presence of the class in recitation or in laboratory. Practice teachers doing work requiring less time will be accredited accordingly.

Practice teachers shall be regarded as regular members of the faculty of the school in which they are working and shall attend such faculty meetings as the principal or superintendent may request. The principal shall have the same authority over practice as over regular teachers and shall hold them responsible at all times for the conducting of the classes assigned to them. University vacations do not excuse practice teachers from the responsibility of their classes.

Subject to the rules and courses of study prescribed by the various principals and schools, the practice teachers shall prepare plans for their work in accordance with the direction of the department of education, as follows:

(*a*) Subject plans as necessary.

(*b*) Tentative outlines of each week's work, to be submitted at the beginning of each week throughout the semester. Students consult heads of high-school departments in which they are working in preparing these.

(c) At least two detailed daily lesson plans each week for the first five weeks, or longer if necessary, and one each week thereafter.

These shall be supplemented by—

(d) Regular consultations with the supervisor.

(e) Special consultations with the individual departments of the university and of the various local schools.

The student's work involved in these steps, together with the reports from supervisors and principals, will be made the basis not only for grades given in practice teaching but also for later recommendation for teaching.

UNIVERSITY OF PITTSBURGH.

By ROMIETT STEVENS and W. G. CHAMBERS.

Practice teaching in the University of Pittsburgh, which is a semi-State institution, is carried on in the public and private secondary schools that are accessible to the university by trolley or train. The apprentices are assigned to a school on application by the school and are subject to the principal during their period of service. They use the methods of the school, following local customs and precedents in administration wherever it is necessary to do so in order to maintain the organization of the school. On the other hand, the apprentice teacher expects the same guidance, supervision, and criticism that are given to the regular teachers. In addition to this supervision by the local authorities, the apprentice teacher is supervised by the staff of the school of education.

"Apprentice teachers[1] report in weekly conference to the supervisor the work done during the week passed, giving their ideas of the results obtained, successes, and failures. These are discussed and the work for the next week is planned. At this conference each apprentice teacher submits an outline of the work for each day of the following week.

"The University of Pittsburgh offers a significant way of differentiating its work in the junior and senior years by assigning apprentice teaching to the junior year and practice teaching to the senior year. Prof. Robertson defines the problems of the junior year in these words: 'In the junior year the students are apprenticed to near-by secondary schools, where they serve as assistants to select teachers of the subject that forms the student's major or minor subject in the university.'

"The apprentice teachers assist daily in all the duties of the school and classroom, except to give actual class instruction at the beginning. They coach backward children, keep records, make out reports, criticize written work, prepare blackboard work, conduct written lessons, assemble and set up apparatus and illustrative material, act as laboratory assistants, look after the ventilation, heating, and lighting of the classroom; in fact, they do anything that belongs to classroom management.

"Another plan that is being used with much success for practice of the junior year is to have the juniors teach regularly from one to three periods daily in seventh or eighth grade classes. These grades should be included with those of the high school, as the problems are similar, but the subject matter is not so difficult as it is later.

"Another form of practice that the University of Pittsburgh is using for the junior year is to have the students act as substitute teachers in graded schools during the illness of the regular teachers or when the regular teachers are visiting other schools. This work is rather incidental, however.

"This work of the junior year gives the students confidence and classroom freedom by making them familiar with the details of administration and class routine and enables them to do these necessary things when they get to teaching with little effort; while with most young teachers the problem of class administration overshadows

[1] C. B. Robertson, Training of Secondary School Teachers, in School Review, Vol. XXI, April, 1913, pp. 225-234.

the instruction—or the reverse may be the case—and it is difficult for them to secure a proper adjustment between the factors. It is planned that this adjustment be secured during the junior year."

The practice work for the senior year includes instruction, discipline, and complete management of a grade, class, or school for two periods each day through the school year. At least one-half of the teaching must be in relation to the major subject of the student.

The school of education has an agreement with the schools of the Pittsburgh district to furnish teachers, assistants, or substitutes for short periods of time to those regular teachers whose standards and methods are approved by the school of education.

The most significant advantages of this generous plan of cooperation between the university and the local high schools are the following:

1. Practical experience for students in regular schools under normal conditions.
2. Substitute teachers of superior qualifications may be secured in unexpected emergencies without delay.
3. Overburdened teachers may lighten their work by turning over the details of schoolroom management to one of our students as a regular assistant.
4. Teachers who are especially strong in one subject or department may be freed for supervision in that specialty by accepting the services of one of our teachers for a part of each day.
5. Principals may get more time for inspection and supervision by utilizing our proffered help.
6. Many of the problems of individual instruction, study-hour supervision, etc., may be solved in the same way.

The University of Pittsburgh gives to each school that is used for training purposes free tuition in a large range of courses in the school of education. These scholarships are given to the members of the high-school faculty, one scholarship for each student that is in training in that high school. In this way the university returns in tuition to each school an amount equal to that paid to the students for traveling expenses, and the benefit accrues to the teaching force.

University of Wisconsin.[1]

Wisconsin provides undergraduate and graduate courses for training teachers leading to different certificates. The undergraduate course, leading to the university teacher's certificate, may be completed during four years of undergraduate work, supplemented by one summer session. The graduate course may be completed during two summer sessions or one semester. This course leads to a special certificate of professional fitness. This university makes use of the term "directed teaching," and under this caption offers a somewhat unique method of administration. Students are assigned to certain classes in the Wisconsin High School, an "own" school. The regular teachers of these classes are charged with the responsibility of assisting students in the interpretation of instructional ways and means. "Six introductory lectures and class demonstrations are given for the purpose of developing a conscious attitude toward those aspects of teacher training which relate to the school as a whole."

Each student is expected to spend eight consecutive weeks, five days a week, in some regular class period. He is a recognized member of the class group, preparing the lessons and holding himself in readiness to participate in the performance of the class as a pupil or as a teacher. He is given a rigid training in both aspects of classroom work. "Students are called upon, with or without previous notice, to meet all sorts of real situations in the class—e. g., to answer questions, present topics in the lesson, quiz the class, develop types of work, summarize a review, illustrate by

[1] Data supplied by Principal H. L. Miller; statement prepared by Dr. Romiett Stevens.

means of objective material, check results, analyze performances of pupils, locating difficulties, and suggesting ways of meeting them; in short, to take the next step in developing a lesson or any other phase of the teaching process. The effectiveness with which these various typical situations are met constitutes the principal basis of estimating teacher qualities and teacher possibilities."

Frequent conferences are held with demonstration teacher, principal, and special supervisor.

The procedure and principles involved are further described as follows:

1. The regularly constituted teaching staff of the secondary school in which facilities for "demonstration and practice" are provided is charged with the immediate responsibility for the instruction of its pupils. A school adequately equipped, staffed, and safeguarded is the first requisite. Its clientele must be assured of superior educational advantages.

2. The prospective teacher, seeking university approval to teach, is adopted into a working high-school group on the basis of an intimate responsible relationship, and is required for a time to participate in the normal legitimate activities of an organized on-going teaching procedure designed to illustrate by its own processes and to demonstrate through its results some productive ways of dealing with the instructional problems of secondary education.

3. It is sought to develop the student's powers of analysis, to direct self-criticism in particular and objective references, and to control conditions calculated to foster self-directive capacity and such originative ability as each candidate may possess.

4. The working conception of this plan is based upon the contention that a true synthesis of scholarship and teaching method emerges continuously out of masterly control of subject matter. The *whats* to teach must inevitably include the complicated and variable *hows* (methods) of teaching. The viewpoint is that neither scholarship tested in a set of academic relations, nor methodology detached from practical circumstances is adequate to the needs of the future professional worker in secondary education. The emphasis, therefore, is upon the product of scholarship, with intellectual and moral qualities focused intensively upon a particular subject in terms of teaching situations of high-school grade. In reality the hiatus between scholarship and method disappears in the deeper currents of effective control of subject matter.

5. The test is thoroughly pragmatic, applied relentlessly for a brief period of apprenticeship under a master teacher. E. g., does the student (student teacher) know the immediate brute facts of instruction, the a, b, c elements of the daily work? Can he command and array such facts in practical situations, manipulate crucial points in a problem-solving situation? Can he present a topic in convincing, lucid style, formulate judgment factors, grip the situation in some significant way, etc., etc.? The answer lies here: *Test* him in the environment of actual teaching, and thereby discover ability to take the *next* step in a progressing series of unique circumstances wherein the process (teaching) remains inventive all the way.

6. The amount of experience is regarded as a subordinate factor. The ability to put intelligent questions to experience is focal. A taste for analysis acquired in a few specific instances is deemed important. No attempt is made to transfer or to make negotiable stereotyped patterns and accredited methods. No formal teaching technique is emphasized. The rigid and somewhat protracted discipline under the master teacher is designed to render the progress of the future high-school teacher toward successful accomplishment more rapid, more economical, and more confident than it otherwise would be.

Reports are made by both supervisor and practice teacher, using the forms below:

Educational practice.

THE UNIVERSITY OF WISCONSIN.
DEPARTMENT OF EDUCATION.

REPORT OF INSTRUCTIONAL AND SUPERVISORY STAFF.

.....
(Last name.) (First name in full.) (Middle name.)

Assigned to.....Room No.....
(Demonstration teacher.)

Subject.....Class.....
(Year of high school.)

Period.....hours.....Date.....to.....
(A. m. to a. m. or p. m.)

Teaching experience (if any),.....years.....

.....(Subjects taught)

1. **Situation.**—What is the character of the work upon which this record is based? Give the specific situation to which the student is asked to respond.....

2. **Response.**—State what the student did. Analyze the piece of work with reference to effectiveness in doing the next thing.

Signed.....Date.....
(Demonstration teacher, principal, special supervisor, or professor in education.)

(File this card in the Principal's Office.)

[BACK OF REPORT.]

Remarks:.....

Constructive suggestions. (If anything can be offered, present it in objective forms of criticism, based upon situations observed as far as possible.).....

Suggestions to Demonstration Teacher, or suggestions to Principal, Supervisors of Instruction, members of Department of Education, by the Demonstration Teacher

Conference with student (if any). What suggestions were made. Be specific.

Educational practice.

THE UNIVERSITY OF WISCONSIN.

COURSE FOR THE TRAINING OF TEACHERS.

STUDENT'S DAILY REPORT

.....
(Last name first.)

Subject..... Class..... Hour.....

Demonstration Teacher.....

Date.....

1. **Situation.**—What is the character of the work required of you? Be specific.

.....

.....

2. **Response.**—Describe what you did. Also, when possible, state briefly the methods you employed to accomplish the results desired.

.....

.....

(File report each day.)

[Back of report.]

3. **Describe the work observed.**—Summarize the main points of the recitation. Mention some significant factors contributing to the effectiveness of this period. (Include any points which seem to you important.)

.....

.....

4. (*a*) Notes on conference with teacher, principal, or supervisor; (*b*) occasionally anticipate ways of dealing with some definite situation arising in the class, or with some exercise designed for instructional purposes, and explain how *you* would proceed.

.....

.....

5. Reading references which you find helpful from time to time in this course.

.....

.....

SOME SIGNIFICANT INTERPRETATIONS OF THE SPECIAL STUDIES AND REPORTS.

By Romiett Stevens

Careful search through the studies and the special reports reveals many items of interest for those who have to meet the real administrative problems in the practical field. First, we call attention to the increase of interest in practical work. Of the 30 State universities reported in Prof. Mead's study, 19 gave practice teaching; of the 11 that did not give it in 1914–15, 6 were then planning to do so. Several of these have already reported progress to this committee (1916). Thus, there are only 5 of the 30 still omitting this phase of work. Of the 13 non-State universities reported, 13 give practice teaching; of the 133 small colleges, 81 give practice teaching. Of the agricultural colleges reporting, 100 per cent make provision for practice teaching. This we believe to be indicative of the value that is attached to practical work in connection with university and college courses in education.

RECOGNITION BY TEACHERS THEMSELVES OF THE VALUE OF PRACTICAL WORK.

Although we have only one local study bearing upon this point, its conclusions are overwhelming for that locality. Of the 79 reported graduates of Indiana University who entered the teaching profession, 41 had had previous experience in teaching and 38 had had no previous experience. Of the first group (with experience), 33 reported that practice teaching in the university had been of much benefit, 6 moderate benefit, and 2 little benefit. Of the second group (without experience), 36 reported much benefit, 2 moderate benefit, and none little benefit.

RECOGNITION BY SUPERINTENDENTS OF THE VALUE OF PRACTICE TEACHING.

In the report of the 19 superintendents replying to Prof. Child's questionnaire, 10 of the practice-trained teachers were found to be above the average of all the teachers in the school; 17 of the 19 were equal to or above the average of all. The comparison with teachers who had had no previous experience is still more striking, as 14 of the 19 were rated decidedly above the average and 18 as equal to or above the average.

These studies are too meager for broad general conclusions, but it certainly is of interest to us to know that in the judgment of one group of superintendents, one semester of practice teaching produces a more successful teacher than does one, two, or three years of teaching without training.

RELATIVE USE OF "OWN" OR PUBLIC HIGH SCHOOL.

From Prof. Mead's study we find the use of "own" and public high schools distributed as follows:

Group.	"Own."	Public.
State university	8	11
Non-State university	2	11
Small colleges	46	35
State agricultural colleges	1	3
Total	57	60

Data regarding the use of both "own" and public high schools by the same institutions are incomplete. Speaking generally, these institutions do not seem to appreciate the value to them and their students of carrying on practice in both types of schools.

VARIABILITY IN NOMENCLATURE.

The terminology of educational practice is being formulated very rapidly in different universities and colleges. It is as variable as the nature of the practice itself. For example, coordinate with the term "practice teaching" we find the following expression: "Apprentice teaching," "volunteer teaching (Teachers College)," "cadet teaching," "practical work (Teachers College)," "directed teaching (Wisconsin)," "student-teaching," "training in teaching (Minnesota Agricultural College)."

In order to avoid confusion in the interchange of ideas and of practices a problem is at once raised of standardizing the terms used.

TYPES OF WORK RECOGNIZED AS PRACTICE TEACHING.

From the special reports it would seem that some of our institutions classify as practice teaching only those hours that are spent in actual teaching, while others include in the term a period of apprenticeship in the practical affairs of a classroom which the student undertakes before taking actual control of a class. The nature of the work included under this caption is carefully defined in some of the reports, from which the following excerpts are taken:

University of Chicago: (*a*) "The student is responsible from the beginning for participating and assisting in the activities of the room, e. g., correcting papers, gathering materials, assisting in-

dividual pupils, etc. (*b*) As a rule the student will be assigned at the first some easy subtopic in a larger unit and allowed to teach from one to five lessons, thus being initiated gradually into the work. (*c*) The number of periods of teaching will be increased as the student becomes capable of assuming them."

University of Minnesota: Minnesota requires not less than 36 hours of actual teaching per semester. Supervision of pupils may be counted for practical work up to 10 periods when the supervision is done in general study periods and in teaching and in teaching pupils how to study. Two periods of supervision are counted as one period of practice teaching.

Ohio Wesleyan University: Here practice teaching includes teaching; assigning lessons; keeping class records; attending to matters of sanitation, ventilation, lighting; conducting quizzes; making reports as the regular teacher makes them.

University of Pittsburgh: Junior year—The student serves a period of apprenticeship in the high school, but does no teaching there; he teaches a few periods in the seventh and eighth grades and acts as a substitute teacher in the grades.

Senior year—The prospective teacher has charge, throughout the year, for two or three periods each day, of instruction, discipline and, management of a grade, a class, or a school. One-half of this work must be in the student-teacher's major subject.

Teachers College, Columbia University: Teachers College uses the term practical work to cover the practical needs of several grades of students; the inexperienced teachers who need practice in teaching and in the control of the classroom; experienced teachers who need practice in supervision; administrators who need practice in administration. Every phase of the practical work of a secondary school that falls within the field of each of these three types of students is considered worthy of recognition, of careful study, and of credit, if performed in ways that contribute to the efficiency of the school. Strictly within the field of practice teaching, the college recognizes as practical work every phase of classroom activity and control, such as correcting papers, tutoring those who are below grade, supplying illustrative material, etc.

Wisconsin: "Students are called upon with or without previous notice, to meet all sorts of real situations in the class; e. g., to answer questions; present topics in the lesson; quiz the class; develop types of work; summarize a review; illustrate by means of objective material; check results; analyze performances of pupils, locating difficulties, and suggesting ways of meeting them; in short, to take the next step in developing either a lesson or any other phase of the teaching process. The effectiveness with which these various typical

situations are met constitutes the principal basis of estimating teacher qualities and teacher possibilities."

MINIMUM ESSENTIALS IN HOURS FOR CREDIT IN PRACTICE WORK.

Here again local needs and local facilities have cooperated in establishing local practices that vary greatly, as may be seen from the following summaries from Prof. Mead's report:

State universities.—Average amount of teaching in semester hours, $4\frac{4}{9}$ to $4\frac{3}{5}$. Median amount of teaching in semester hours, 5 (A. D. 2.2).

Non-State universities.—Average amount of teaching in semester hours, 4 to 4.8. Median amount of teaching in semester hours, 4.55.

Small colleges.—Average amount of teaching in semester hours, 3.08 (A. D. 2.1). Median amount of teaching in semester hours, 2.5 (31 institutions).

State agricultural colleges.—Average varies from $\frac{1}{2}$ to about 3 semester hours.

If the term "practical work" is used to cover the different interpretations of practice teaching, as quoted in the excerpts, from special reports above, the following requirements are observed in local practice:

Chicago requires one hour a day per quarter.

Harvard requires one hour a day per semester.

Indiana requires one hour a day per semester.

Iowa requires one hour a day per semester.

Minnesota requires 1 hour a day per semester, including 36 hours actual teaching.

Missouri requires one hour a day for one year.

Ohio Wesleyan requires 1 hour a day for 36 days.

Pittsburgh requires two to three hours per day for one year.

Teachers College, 25 days.

Wisconsin, 40 days.

Assuming that these statements cover the requirements for practical work rather than actual practice teaching, several questions suggest themselves:

(1) Should there be a definite period of apprenticeship before actual teaching is begun?

(2) Is there a minimum essential in hours of actual teaching for the certification of a teacher?

(3) Is there a maximum in hours for the teaching of one subject or one class?

(4) Should adequate training definitely provide opportunities to work with more than one group of pupils?

RESPONSIBILITY FOR WORK OF SUPERVISION.

Supervision of practice teaching varies in kind and amount to such an extent that it is difficult to secure any distinct tabulation. The data in Prof. Mead's report, examined in an attempt to discover where the responsibility for supervision rests in State and non-State universities, show the following results:

1. With the exception of California, Georgia, and North Dakota, the work of supervision is everywhere performed or shared by colleges of education.

2. In the following universities supervision rests *wholly* with the members of the department of education. In several instances where there is danger of interpreting the statement inaccurately, I have quoted the wording in Prof. Mead's report:

University of Arkansas ("Supervisor of training and critic teacher").

University of Minnesota ("Special supervisor").

University of Nevada ("Instructor who gives theory and practice").

Ohio State University.

University of Oregon.

University of Texas ("Professor of art of teaching and his assistants").

University of Utah.

West Virginia University.

Northwestern University ("Critic teacher and professor of secondary education").

New York University.

University of Pennsylvania.

3. There is very little supervision by academic departments. Of the 30 universities in the list, only 6 mention supervision by academic departments: Idaho, Kansas, Missouri, Teachers College, Leland Stanford, and Chicago.

PREREQUISITES FOR PRACTICE TEACHING.

Because of the difficulty in interpreting the requirements for majors and minors and the nature of the college courses from their titles, it seems impossible to classify or to tabulate these returns in any intelligible way. While the nomenclature of college catalogues is perfectly clear to those who originate and use it, it is often bewildering to the stranger. That there is considerable variation in the nature of the professional preparation that is prerequisite to or parallel with the work in practice is undoubtedly true, but in the main universities and colleges alike report as prerequisite some courses in the general field of education, the academic subject the

student is to teach, principles of teaching, special method or general method, often both. In Harvard the single course absolutely required of all who do practice teaching is called principles of secondary education. A candidate must also satisfy the department of his major academic interest that he has sufficient command of the subject to teach it. In addition he is supposed to have taken courses in the principles of education, history of education, general and educational psychology.

In Minnesota general psychology (6 hours) is the uniformly required subject, with 12 hours of work in courses chosen from the following group: History of education, social aspects of education, technique of teaching, and "teachers' courses covering at least two high-school subjects."

Missouri requires all of the following: History of education, 4 hours; educational psychology, 4 hours; theory of teaching, 3 hours; school economy, 2 hours. Those who wish a life certificate *must* also take: Teaching of a subject, 2 hours; practice teaching, 10 hours; 15 hours of academic work in the subject of his choice. It may be stated with a sufficient degree of accuracy that all the other universities fall in between Missouri, with her fixed requirement of 40 hours, and Harvard, with her liberal one.

FORM OF AGREEMENT BETWEEN UNIVERSITIES AND PUBLIC HIGH SCHOOLS.

Harvard University has a uniform agreement, which is signed by the president of Harvard University and by the chairman of the school committee of the town that accepts practice teachers. By this agreement Harvard University grants free tuition in Harvard University to men teachers and in Harvard Summer School to both men and women nominated by the superintendents of the towns in which practice teaching is done, the total number of nominations for free tuition in Harvard University and Radcliffe College not to exceed the number of positions granted to practice teachers. Tuition in "one full course" constitutes one nomination, which balances one nomination for practice teaching. This seems to be an exact quid pro quo by which the school may, if it so desires, secure adequate return for service.

The method pursued at Teachers College with the suburban groups of schools is for the board of education of the town to make application to the dean of Teachers College for a limited number of apprentice teachers. The service to the school must in every case be informally estimated, there being at present no exact exchange of service as at Harvard.

University of Montana: Montana pays its critic teachers, who are members of the high-school staff, $40 each.

University of Nevada: Nevada allows a student teacher to act as substitute teacher in the high school, in case of sudden emergency, for one week.

University of Pittsburgh: To the school granting the privilege of student teaching the university grants a scholarship for two hours' work in education; on the other hand the board of education pays the necessary expenses of the student in traveling to and fro.

Brown University: Brown University pays each supervising teacher in the high school $50.

Bowdoin College: At Bowdoin and also at Whitman College the student teachers receive remuneration for their services.

Indiana University: There must be "mutual agreement between the city superintendent, the university school of education, and the university department concerned." Of the annual salary of the critic teacher ($1,800 maximum), the city school pays 60 per cent, and the university 40 per cent.

An avenue for constructive activity in connection with this problem is that of organizing, at least for State universities, some definite plans for the cooperation of universities and public high schools, and getting State laws passed *to require public schools to cooperate with State universities* in furnishing laboratory facilities for the better training of future teachers.

State laws might also *make legal such cooperation between non-State institutions for the training of teachers and the public high school,* especially when such relationship involves remuneration to the public school, thus avoiding the possibility of conflict arising over the payment of a fee to persons in the public employ by non-State universities and colleges.

THE SELECTION OF STUDENT TEACHERS.

Here again the material at hand is insufficient or too difficult of interpretation to be of any real use. Some reports state by whom the candidate is chosen, but few attempt to state the basis for the selection. Further study of this problem is needed in order to answer satisfactorily such questions as these:

(1) Is there any effort being made in schools of education to eliminate the unfit? If so, at what point is the elimination made, and on what grounds?

(2) Is there a health requirement in the selection of a student teacher? For certification as a teacher?

(3) Is there a moral-social requirement?

(4) How many semester hours of work should be considered a minimum requirement in the content subjects? How many in education? Are there certain essentials in education? What are they? There is certainly great need of clearing up the obscurity (caused

chiefly by different nomenclature in different universities) that shrouds every attempt to solve these problems.

During the year 1915–16 Dr. C. E. Holley, of Ohio Wesleyan University, made a brief study of the problem of selection of student teachers by the use of standardized tests. The general plan was to obtain ratings of prospective student teachers by the standard tests, and then to find the degree of correlation between these ratings and the later efficiency of the student teacher in actual teaching work. The efficiency of the teacher was that judged by the supervisor in charge, based on the subjective criteria embodied in the supervisor's report used at Ohio Wesleyan. Practically no correlation was found between the ratings in the standard tests and the ratings upon the subjective standards of teaching efficiency as made by the supervisors.

CONCERNING METHODS OF RECORDING AND ACCREDITING PRACTICAL WORK.

Only a very few blank forms used for rating and recording the teaching ability of the student teachers have been sent to the committee.

Ohio Wesleyan contributes one, a supervisor's chart to be used at each observation, on which there are printed some 50 points in detail under four general headings:

1. Effects of work of teacher observable on pupils.
2. Technique of teaching.
3. Items of schoolroom management.
4. Personal facts about teacher.
5. Miscellaneous items.

The supervisor rates the student by inserting letters from A to F after any of these points. There is also a place for a summary rating giving each letter its value under the point system, giving average, median, or mode of these values.

The University of Minnesota offers the following list of factors to be considered in judging student teachers:

1. *Personality:* Appearance; health; expression; poise; impersonal attitude in discipline; enthusiasm; relation to pupils—sympathy, influence; power.

2. *Scholarship:* Knowledge of students and community; knowledge of subject matter; preparation of assignment; use of language; ideals of attainment.

3. *Method:* Use of text; subject matter—selection, preparation, arrangement, and presentation; skill in questioning; ability to clinch essentials.

4. *Room conditions:* Appearance; glint; ventilation; seating.

5. *Professional factors:* Good judgment; sense of values; initiative; open-mindedness; sense of responsibility; spirit of cooperation; reliability—punctuality, regularity.

The University of Iowa sends a blank form used for recording observations.

Wisconsin sends two types of cards, one to be filed each day by the student in educational practice, and the other by the "instructional and supervisory staff." Both cards are worthy of study.

Teachers College requires the students to file a 3 by 5 card to record the nature of the observations made. There is also a complete filing chart for checking the attainments of the student teacher. It is an excellent chart as charts go, but it does not prove to be of any considerable value in the hands of the supervisor because the items of conspicuous importance that need to be recorded for some particular lesson can not be put down with a mere check mark or a letter or figure. Teachers College has the chart in private conferences with the student, checking up in his presence his attainments along the lines specified in the chart.. For actual record we prefer the dictated reports of each observation, reports which emphasize the significant elements of the day's work. Harvard uses this informal method of reporting the work of the student teachers, although the report is made on paper of uniform size for filing with brief form at the top for record of name, school, subject, etc. After reading two or three of these informal reports of a student's work, one secures a clear photograph of the student's strength and weakness.

The secretary of the committee has recently gathered blank forms used for reporting on practice teaching from the following additional schools: Ohio State University, University of Washington, Purdue University, Minnesota Agricultural College, University of Kansas, University of Nebraska, University of Chicago, Kansas Agricultural College, Iowa State College of Agriculture and Mechanic Arts, and Indiana University.

Undoubtedly there is a vast amount of material of this kind, that would be of help to all who are interested in the problem, if it could be secured. The committee has filed with this report all that has been made available for our use.

RECOMMENDATIONS OF THE COMMITTEE OF COLLEGE TEACHERS OF EDUCATION.

The committee offers for consideration and discussion the following recommendations (the word "Divided" indicates lack of unanimity of opinion in committee on point concerned):

1. That the term practice-teaching be discarded.

The word practice-teaching carries to the mind of the public the idea that pupils are being practiced upon. This idea is resented by many, and the continued use of the term is apt to stigmatize our work. At least one high-school principal has already refused to permit the word practice-teacher to be used within his school for the reasons here suggested. (Divided.)

2. That the term practical work (instead of practice-teaching) be accepted as the blanket expression to cover all the different stages in the classroom experience of the candidate. (Divided; Prof. Mead recommends the term laboratory work.)

3. That the following terms be construed somewhat as follows:

Practical work, to include observation, experimentation, apprentice work, supervised or directed teaching.

Observation, to define that phase of practical or laboratory work which involves purposeful study, under direction and supervision, of the work of experienced teachers.

Apprentice teaching, to define a phase of practical work that generally precedes directed teaching where the student is called upon to serve as an apprentice in performing with the teacher all the duties of the class hour, such as correcting papers, keeping attendance and reports, looking after health standards, making an assignment, teaching a small part of the period, securing control of the class while taking attendance. (Divided. Profs. Meriam, Dorcas.)

Supervised teaching or directed teaching to define actual teaching under direction.[1]

4. (*a*) That one hour of practical or laboratory work per day per semester be regarded as a desirable unit for credit.

(*b*) That this unit of practice should include observation, apprentice work, and directed teaching. (Divided. Prof. Mead suggests that each phase, observation, etc., be credited separately upon the above basis.)

[1] The recommendations concerning terminology, by society action at the Detroit meeting, were placed in the hands of the society's committee on terminology.

(c) That this experience be divided so as to include work in two high-school subjects, or different years in one subject, rather than to be continued with one subject and one group of pupils for the entire time. (Divided. Prof. Meriam would require teaching in one subject.)

It is considered desirable for teacher in training to become familiar with first-year and with fourth-year pupils, with elementary work in a subject (mathematics for example) and with advanced work in the same subject.

5. That the giving of demonstration lessons be encouraged wherever possible in order that observation work may be enriched. (Divided. Prof. Meriam opposed.)

6. That a type of practical or laboratory work for teachers of experience be developed differing in nature from that of inexperienced teachers, this work to include:

(a) Observation of demonstration lessons in order that they may have an opportunity to see the new technique of teaching with materials that meet the present demands of society.

(b) Solving of problems connected with subject matter and method,

(c) Some teaching to try out experiments with subject matter or method,

(d) Supervision of the work of inexperienced teachers.

7. That both university-controlled high schools and the public high school be used wherever possible in the training of student teachers.

"Own" school (a) because conditions can be controlled according to standards desired by the university, (b) because demonstration lessons for observation can readily be arranged, (c) because experiments with course of study and method can be carried on. In other words, the peculiar function of a university-controlled school is that of demonstration and experimentation. It should not necessarily be a "model" school.

Public high school because conditions are such as student teacher will have to face in actual teaching.

An "own" school adjusts environment to the student; a public school compels a student to adjust himself to his environment.

8. That supervision of student teaching be closely controlled by university departments of education in order to insure certain definite prerequisites in the selection of student teachers, as, for example,

1. Quantity and quality of work in *content* subjects.

2. Quantity and quality of work in *education*. Courses in education to include at least educational psychology, general methods, and special method.

3. The moral status of the candidate.

4. The physical status of the candidate—and as corollary to the above, the judicious elimination of those who by reasons of health, education, or temperament, are unfit for the teaching profession.

CONCLUSIONS.

In conclusion, the committee on practice teaching for secondary teachers, appointed at the 1915 meeting of the Society of College Teachers of Education, has made a partial survey of the methods of administering the practice teaching of prospective secondary school teachers employed in college departments and schools of education. This survey has made clear three facts:

1. That methods of procedure vary greatly in the several institutions;

2. That guiding principles of procedure are not clearly defined;

3. That the problem of the administration of supervision of practice teaching is but a part of the larger general problem of the training of prospective secondary-school teachers and should be considered as a part of the major problem.

The general problem of the training of prospective secondary school teachers includes such important factors as:

I. The province of departments of education in college or university:
   1. The delimitation of the legitimate fields of the normal school and the college department of education, especially with reference to the training of prospective high-school and junior high-school teachers.
   2. The relation of the department of education to other departments of the college or university.
   3. The relation of the department of education to the State board of education, etc., especially with reference to certificates.

II. Training preliminary to admission to practice teaching:
   1. Desirable training in subjects to be taught;
   2. Desirable training in educational theory;
   3. Desirable training through observation.

III. The administration of practice teaching:
   1. The place and use of the university-controlled school;
   2. The use of local public secondary schools;
   3. Selection of the student-teacher;
   4. Desirable length of the practice work period of experience;
   5. Its time relation to other college work.

IV. The supervision of practice work:
   1. Adequate supervisory force;
   2. "Subject" supervisors from other departments of the college;
   3. The use of experienced teachers, principals, or superintendents who may be members of the graduate student body;
   4. Minimum essentials of adequate supervision.

V. Credits for practical work, recommendations, placing teachers, etc.:
   1. Time and subject credit for practical work;
   2. Cooperation with school boards, etc., for certificate credit, etc.
   3. The basis for recommendation for positions, especially the assumption of such function by "subject" departments and individual instructors, other than in education.
   4. Methods employed in placing teachers. Cooperation of institutions in this work.
   5. Methods of "follow up" in the case of teachers placed.

The present study lies wholly within the scope of No. III of these general problems. Recognizing the importance of knowledge concerning all of these factors and the development of more or less standardized methods of procedure in all, the present committee recommends:

1. That the Society of College Teachers of Education through its executive committee appoint a committee of 10 to complete the study of the entire problem of training secondary-school teachers, to consider existing conditions, and to make recommendations designed to improve all of our methods of training prospective secondary-school teachers.

The committee reported at the Kansas City meeting of the Department of Superintendence, National Education Association, February 26, 1917, that several colleges had added practice teaching to the professional training course; that several institutions have increased their facilities and some are reorganizing their work; and that several special studies of problems involved have been made during the year.

METHODS OF RATING WORK OF PRACTICE TEACHERS.

The methods of rating the work of practice teachers will be more fully investigated during the coming year. At present some few facts are evident.

First, some institutions record a rating as "Satisfactory" or "Unsatisfactory." This rating is made and recorded at the end of the period of practice teaching. This mode of rating tends to appear in cooperative systems in which the supervision and rating are done by public-school teachers with little training for such work.

Second, other institutions use their regular letter-grade system of rating and make a single rating and report at the end of the period of practice.

Third, a system like that in use at Indiana University appears occasionally. It consists of making several different ratings during the period of practice, and a final summary rating at the end of the period of practice.

Fourth, some institutions are developing analytical systems of rating. These are somewhat like a score-card system, each point being rated by some consistent plan and at the end of the period of practice a summary rating is made. They sometimes involve the weighting of the different points included. The best example is that developed by Sprague (Ped. Sem., March, 1917, pp. 72–80).

SOME EVIDENCES OF PRESENT STATUS OF OPINION RELATIVE TO REQUIREMENT OF PRACTICE TEACHING FOR SECONDARY TEACHERS.

Last year a communication was addressed to all professors and deans of departments and colleges of education in Ohio. One question included was as follows: "Would you retain practice teaching as a requirement for securing the State certificate?" The replies were practically unanimous in favor of retaining it. In detail they were as follows:

1. Rather more practice teaching than less.
2. Would want practice teaching optional.
3. Think it unwise to eliminate practice teaching.
4. I should regard the elimination of practice teaching as the most serious blow that could be struck at the professional training of high-school teachers.
5. We believe in practice teaching for secondary teachers.
6. Favor retention of practice teaching.
7. Yes, retain practice teaching.
8. Most emphatically, I favor retention of practice teaching.
9. Practice teaching is of great value.
10. I favor retention of practice teaching.
11. Yes, I favor practice teaching.
12. Requirement is about right.
13. Practice teaching should remain a required subject.
14. Let the work remain as it is.
15. Neither favor nor oppose present requirement.
16. I regard practice teaching as the most essential of all the requirements.

Out of 16 replies, 14 favor the requirement of practice teaching, 1 would make it optional, and 1 is neutral.

At the recent meeting of the Society of College Teachers of Education at Kansas City two votes were taken as to the requirement of practice teaching for secondary teachers. The group voting numbered about 500, of whom about 200 were superintendents of public-school systems. The question was first put to the teachers of education, "Do you favor practice teaching for secondary teachers?" The vote was unanimous in favor of such a requirement. Then the same question was put to the superintendents present, and again the vote was unanimous in favor of the requirement.

It also appears that in the smaller cities, in villages, and rural communities, the opinion is not so unanimous. Some persons who are opposed fear that such work will injure the regular work of the school, and some few frankly say that they do not believe that practice teaching helps the prospective teacher.

THE OBSTACLES TO THE DEVELOPMENT OF PRACTICE TEACHING FOR SECONDARY TEACHERS.

From the data included in this study, from many conferences with professors of education and with public-school officials and teachers the author has come to believe that the obstacles to the efficient growth of this work are as follows: (1) *Conservatism of educational institutions.* This seems to be the most outstanding. It is shown in a wide variety of ways, such as meeting a formal requirement but discouraging the work by word and deed. (2) *Inefficiency of the work itself.* The principles involved are good, are admitted to be good by practically all, but some practice teaching is little better than the teaching of a beginner, without such training, under the old system. The lack of efficient supervision is probably the weakest point. When this is weak, the student teacher is left entirely to the process of "trial and accidental success." The lack of supervision is due, in most cases, to lack of money. The small colleges, particularly, are hampered in this respect. (3) Although much of the work is not highly efficient, the author is convinced that the greater share of the work is not only better than the old system of no practice teaching, but many systems are attaining a very high degree of efficiency. *What is needed to help this movement is data to show the actual superiority of this systematic training.* With such facts as revealed by the study of Prof. Childs, more progress can be made than by having to say continually that we believe the training is better. (4) *A noncooperative attitude assumed by many public-school men* when the success of the work depends upon a cooperative plan between public schools and college or university.

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