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Present Practices & Methods of Supervising Student Teachers in Industrial Arts

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1936

PRESENT PRACTICES AND METHODS OF SUPERVISING
STUDENT TEACHERS IN INDUSTRIAL ARTS

BY

WALTER B. NALBACH

A THESIS
SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

WESTERN KENTUCKY STATE TEACHERS COLLEGE

DECEMBER, 1936

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CHAPTER I

INTRODUCTION

The supervision of student teaching of industrial arts is a subject about which very little has been written. At present there is little available information as to requirements and current practices in supervising student teachers in this field.

The supervision of student teaching in industrial arts has for its immediate objective the improvement of actual classroom teaching. This is accomplished by giving the student teacher experience in the solution of all teaching problems with which he will ordinarily be confronted when he becomes a teacher of the subject. The term "student teacher" as used in this study refers to practice teaching as found in the check list which appears as Appendix I.

This study deals with the practices in supervising student teaching in industrial arts as they are found in institutions which offer courses in this subject. It is the hope of the writer that the information contained herein will be of some value to those who are supervising student teachers, in order that they may be able to supervise them more efficiently and effectively during their early teaching period.

The first chapter serves as an index to the chapters and topics which follow. The chapters follow closely the units mentioned in the problem. The topics of this chapter are

discussed briefly in the order of their appearance:

1. What prompted the study.
2. Statement of the problem.
3. Scope of the study.
4. Sources of data.
5. Method of treatment.
6. Review of similar studies.

What prompted the study.— This study, "Present Practices and Methods of Supervising Student Teachers in Industrial Arts," was prompted by the fact that the writer is concerned with supervising student teachers in this field in the Western Kentucky State Teachers College. Since the writer is interested in improving the present program of supervision of student teachers, it is natural to investigate the practices obtaining in other institutions of similar nature in order that this study may have a quantitative foundation.

Statement of the problem.— The problem is threefold:

1. To determine the present practices of the programs in which student teaching is done.
2. To analyze significant variations and to show important central tendencies in the technique of supervision of student teachers.
3. To ascertain a means of evaluating student teaching in industrial arts.

Scope of the study.— This study includes approximately 40 per cent of the teacher training and other institutions in

the United States offering industrial arts. It deals with the supervision of student teaching in industrial arts in institutions offering directed teaching in this field.

Sources of data.— The information used in this study was obtained by means of a preliminary query and a check list. The preliminary query, in the form of a double postal card, was sent to two hundred and six institutions to ascertain whether they offered industrial arts and directed teaching. Of these two hundred and six institutions, only ninety-one, or 43 per cent, replied. Seventy-five of these offer industrial arts and directed teaching in their own department or elsewhere. Copies of the check list were then sent to supervisors and department heads of the seventy-five institutions mentioned above. Fifty-five replies, representing institutions in twenty-five different states, were received in time for tabulation and use in this study.*

Method of treatment.— The method of treatment is analytical and statistical. The analytical treatment determines significant variations and shows important central tendencies in the technique of supervision of student teachers. The statistical treatment involved is simple. It takes into consideration such things as range, median, and mode of (a) number of years' experience in supervising student teachers, (b) number of years critic teacher or supervisor has taught, (c) courses

*The names of the fifty-five persons who filled out the check list appear in Appendix II.

in which student teaching is done, (d) per cent of time student teacher observes class work, (e) per cent of time student teacher actually teaches the class, and (f) other items in the check list.

Review of similar studies.— One study was found dealing with the supervision of practice teachers in the field of secondary vocational agriculture. The outline of this study includes the problem, source of data, method of treatment, and findings and conclusions.

Day's Study¹

Problem.— The problem is threefold:

1. To trace the development of systems of practice teaching in agricultural education in ten representative States.
2. To determine the technique of supervision which has developed in these institutions in teaching students of agriculture.
3. To determine important central tendencies both in systems of practice teaching and in the technique of supervision involved.

Source of data.— The data were secured from individual interviews with responsible supervisors or teacher-trainers representing ten States. As a guide to the interview, a skeleton schedule consisting of seventy-six set questions was prepared so that an accurate word-

¹ Frank D. Day, Systems of Practice Teaching and Methods of Supervising Practice Teachers in Secondary Vocational Agriculture, unpublished Master of Arts thesis, University of Maryland, Baltimore, Md., 1926.

picture of the situation, as it was evolved in each State, could be obtained. Each interview was taken in shorthand and written up in connected form; in many cases the responses and terminology were used verbatim.

Method of treatment.— The method of treatment is statistical, analytical, and comparative.

Findings and conclusions:

1. The ten institutions studied have an average of 2.7 years' experience conducting practice teaching in agricultural education. They have used an average of 1.9 different set-ups for the satisfaction of the practice teaching requirement. They require 16.1 semester credits in education courses. The institutions have graduated 11.2 seniors per semester.
2. The practice teaching department is usually located within a radius of five miles of the university campus. Practice teaching is done under the provision of the Smith-Hughes Act.
3. Student teachers usually do all of their practice teaching in a single vocational department.
4. Students are held responsible for an average of 2,010 minutes of actual classroom teaching, extending over a period of 11.3 weeks.
5. The student teacher ordinarily begins his practice period by taking charge of a complete lesson on the first day, having been informed of the nature of the teaching job approximately one month in advance of the lesson, having prepared his lesson plan from one to eight days in advance (which plan has been discussed with the supervisor and checked by him), and having done some initial observation before actually teaching.

6. The critic teacher is usually present as a helping teacher during the first teaching periods of student teachers.
7. A few teaching criticisms are mentioned at each critique.
8. The critic teachers are present in the classroom with student teachers for an average of 83.5 per cent of the total teaching time of the latter.
9. The tendency is for supervisors to be absent from the classroom more after the student teacher has had some experience than in his beginning periods.
10. Student teachers are usually required to make an agricultural resource survey of some farming community of the State.
11. Student classes in agricultural education average seventeen observations each in vocational agriculture.

Cass's Study²

Problem.— The problem deals with the methods of conducting observation and student teaching in certain vocational industrial teacher training centers.

Source of data.— The data were gathered by means of a questionnaire which was sent to thirty teacher training

²
E. M. Cass, An Investigation of Current Practices in Conducting Student Teaching in Certain Selected Centers for Training Vocational Industrial Teachers, unpublished Master of Arts thesis, University of Pittsburgh, Pittsburgh, Pa., 1928.

institutions. Returns were received from twenty-one of these institutions.

Method of treatment.— The method of treatment was analytical, comparative, and statistical.

Important findings and conclusions:

1. Observation and practice teaching are considered as one course by 66.6 per cent of the training centers investigated; only one-third of the centers have separate courses.
2. No definite practice in regard to the semester in which the student shall take observation and practice teaching is found.
3. The tendency is for all students in teacher training centers to be required to take observation and practice teaching.
4. Substitute teaching is recognized by the majority of directors in lieu of observation and practice teaching.
5. Public schools are used in 85.5 per cent of the training centers for observation and in 66.6 per cent for practice teaching.
6. A combination of day and evening schools was utilized by 51.9 per cent of the directors for observation and practice teaching.
7. An even distribution of requirements of varied or limited experience for observation and a tendency toward a limited experience for practice teaching is found.
8. Over half of the training centers require

individual practice teaching lessons.

9. There is no uniformity as to the amount of time devoted to observation and practice teaching in the training centers investigated. The range in student clock hours is from two to two hundred and sixteen for practice teaching, and from two to sixty for observation.

10. Critic teachers are employed by fourteen of the twenty-one training centers studied.

11. There seems to be little uniformity of method for selecting critic teachers.

12. Availability is the most prevalent criterion for the selection of critic teachers.

13. There is no uniformity of procedure regarding the tenure of critic teachers.

CHAPTER II

THE PRESENT PRACTICES OF THE PROGRAMS IN WHICH STUDENT TEACHING IS DONE

The idea of student teaching is not one of recent origin. In 1860, Edward A. Sheldon, Secretary of the Oswego, New York, Board of Education, proposed to the board that a city training school be established for the training of teachers. The board of education approved the proposition and in May, 1861, the Oswego Training School was established. "The school at Oswego marks an epoch in the history of teacher-training institutions of the country in the emphasis which it laid upon the importance of student teaching as a factor in the professional preparation of teachers. From the very first, the Oswego school set a high value upon this work; and it is doubtless due in no small measure to its influence that a training school is now generally regarded as an indispensable part of teacher training."¹

With the increase of training schools, student teaching becomes an important part of the teacher training program. Since student teaching is, to some extent, an outgrowth of institutional necessities, it is found that many variations exist between general practices and requirements.

It is the purpose of this chapter to ascertain the

¹W. D. Armentrout, The Conduct of Student Teaching in State Teachers Colleges, (Colorado State Teachers College, Greeley, Colorado, 1927). p. 9.

prevailing practices and requirements of these various institutions.

The facts will be treated under the following headings:

1. Academic training of supervisors.
2. Total teaching experience of supervisors.
3. Experience of supervisors in directing student teachers.
4. Types of schools in which student teaching is offered.
5. Method courses as prerequisites to student teaching.
6. Courses open to student teaching.
7. The year in which student teaching is offered.
8. The levels in which student teaching is done.
9. Length of courses in which student teaching is done.
10. Length of class period.
11. Time spent by student teacher in class.
12. Amount of time spent by student teacher in observation.
13. Time spent by student teacher in actual classroom teaching.
14. Semester credit earned in student teaching course.

Academic training of supervisors.— It is needless to say that the ability and training of persons in responsible positions should not only be superior to that of those with whom they deal, but in most cases and in many ways there should be a considerable margin of superiority. The critic

teacher or supervisor, who is an adviser of future teachers, should sense his ability to mold the lives and professional attitude of those with whom he works.

TABLE I
HIGHEST ACADEMIC DEGREES HELD BY SUPERVISORS
OF STUDENT TEACHERS

Degrees Held	: Number : of : Cases	: Per Cent : of : Responses
No Degree	: 1	: 1.8
Bachelor's Degree	: 5	: 9.5
Master's Degree	: 45	: 84.9
Doctor's Degree	: 2	: 3.8
TOTAL	53	100

At present the college degree is a convenient standard for the measurement of attainments and preparations. According to the facts set forth in Table I, only one supervisor is shown without a degree; five, or 9.5 per cent, have earned the B. S. or the A. B. degree; forty-five, or 84.9 per cent, have earned the Master's degree; and two, or 3.8 per cent, have earned the degree of Doctor of Philosophy.

If the Master's and Doctor's degrees meet the standard, the high proportion of advanced degrees among critic teachers and supervisors indicates that there are many leaders of this phase of training who have good scholastic preparation.

TABLE II

TEACHING EXPERIENCE OF SUPERVISORS OF STUDENT TEACHERS

Years	: Number :	: Per Cent
	: of :	
	: Cases :	
50 or more	: 1 :	1.8
45 - 49	: :	
40 - 44	: :	
35 - 39	: :	
30 - 34	: 5 :	9.1
25 - 29	: 8 :	14.5
20 - 24	: 13 :	23.6
15 - 19	: 12 :	21.8
10 - 14	: 12 :	21.8
5 - 9	: 3 :	5.4
3 - 4	: 1 :	1.8
TOTAL	55	100
MEDIAN	19.8 years	

Teaching experience of supervisors of student teachers.—

It would be futile for one to attempt to direct others in the doing of something that he himself had not done. Those who replied to the check list show a teaching experience of from three to fifty years, with a median of 19.8 years. According to the facts presented in Table II, only one supervisor has had less than five years' teaching experience; three, or 5.4 per cent, have had from five to nine years' experience; twelve, or 21.8 per cent, have had from ten to fourteen years' experience; twelve, or 21.8 per cent, have had from fifteen to nineteen years' experience; thirteen, or 23.6 per cent, have had from twenty to twenty-four years' experience; eight, or 14.5 per cent, have had from twenty-five to twenty-nine years' experience; five, or 9.1 per cent, have had from thirty

to thirty-four years' experience; and one, or 1.8 per cent, has had fifty years of teaching experience.

TABLE III
EXPERIENCE IN SUPERVISING STUDENT TEACHERS

Years	: Number :	: Per Cent
	: of :	
	: Cases :	
40	:	:
35 - 39	: 1 :	1.8
30 - 34	:	:
25 - 29	: 1 :	1.8
20 - 24	: 3 :	5.4
15 - 19	: 5 :	9.1
10 - 14	: 10 :	18.1
5 - 9	: 12 :	21.8
3 - 4	: 18 :	32.7
	: 5 :	9.1
TOTAL	55	100
MEDIAN	11.9 years	
MODE	5 years	

Experience of supervisors in directing student teachers.—

According to the facts shown in Table III, the range of experience in supervising student teachers is from three to forty years, the median being 11.9 years, and the mode five years. Five, or 9.1 per cent, of the supervisors have had less than five years' experience with student teachers; eighteen, or 32.7 per cent, have had from five to nine years' experience; twelve, or 21.8 per cent, have had from ten to fourteen years' experience; ten, or 18.1 per cent, have had from fifteen to nineteen years' experience; five, or 9.1 per cent, have had from twenty to twenty-four years' experience; three,

or 5.4 per cent, have had from twenty-five to twenty-nine years' experience; one, or 1.8 per cent, has had from thirty to thirty-four years' experience, and one, or 1.8 per cent, has had forty years' experience in directing student teachers.

TABLE IV
TYPES OF SCHOOLS CONDUCTING STUDENT TEACHING
IN INDUSTRIAL ARTS COURSES

Organization	: Number : of : Cases	: Per Cent : of : Responses
Training School	: 36	: 40
College Industrial Arts Department	: 29	: 32.2
City School System	: 23	: 25.5
County School	: 1	: 1.1
Township	: 1	: 1.1
TOTAL	90	100

Types of schools in which student teaching is offered.— Of the fifty-five institutions cooperating in this study, six, or 40 per cent, have training schools within their organization; twenty-nine, or 32.2 per cent, indicate that student teaching is done in the college industrial arts department; twenty-three, or 25.5 per cent, indicate that student teaching is done in the city school system under special arrangements; one, or 1.1 per cent, indicates that student teaching is done in the county schools, and one, or 1.1 per cent, in the schools of the township. To avoid any misunderstanding, the writer wishes to explain that the total number of cases, as shown in Table IV, is the result of the fact that some institutions offer student teaching in more than one system.

This is why the total number of cases exceeds the number of responses received.

TABLE V
DISTRIBUTION OF METHOD COURSES AS PREREQUISITES
TO STUDENT TEACHING

Courses	: Number :	: Per Cent
	: of :	
	: Cases :	
The Organization of Industrial Arts	: 11 :	16.9
Content and Method of Industrial Arts	: 8 :	12.3
Techniques of Industrial Arts	: 6 :	9.2
Problems of Industrial Arts	: 6 :	9.2
Teaching of High School	: 4 :	6.2
History of Industrial Education	: 4 :	6.2
Principles of Teaching	: 4 :	6.2
Principles of Secondary Education	: 3 :	4.6
Educational Psychology	: 3 :	4.6
Teaching Problems of Industrial Arts	: 3 :	4.6
Analysis and Organization of Subject Matter Content	: 3 :	4.6
Methods of Industrial Arts	: 2 :	3.2
Introduction to Industrial Arts and Vocational Education	: 2 :	3.2
Educational and Vocational Guidance	: 1 :	1.5
Foundations of Industrial Arts	: 1 :	1.5
Practices and Trends of Industrial Arts	: 1 :	1.5
Organization and Administration of Industrial Arts	: 1 :	1.5
Child Development	: 1 :	1.5
Orientation of Industrial Arts Subject Matter	: 1 :	1.5
TOTAL	65	100

Method courses as prerequisites to student teaching.--

The prerequisite courses in this study have reference to the method courses in the field of industrial education. But before passing to a thorough examination of the plan of student teaching, it is necessary to turn to theory courses in an attempt to discover the prerequisite studies designated by the

departments in these different institutions to assure the student teacher a proper foundation of educational principles. The various courses, with their actual relative frequencies, are shown in Table V.

The Organization of Industrial Arts leads the list, with 16.9 per cent of the schools requiring this course as a prerequisite to student teaching. Eight schools, or 12.3 per cent, require Content and Methods of Industrial Arts, while Techniques of Industrial Arts and Problems of Industrial Arts each are required by six, or 9.2 per cent, of the schools. Teaching of High School, History of Industrial Arts, and Principles of Teaching each are required by four, or 6.2 per cent, of the schools. Principles of Secondary Education, Educational Psychology, Teaching Problems of Industrial Arts, and Analysis and Organization of Subject Matter Content are each required by three, or 4.6 per cent, of the schools. Methods in Industrial Arts, Introduction to Industrial Arts, and Vocational Education each are reported by two, or 3.2 per cent, of the schools. The list ends with six subjects mentioned but once each: Educational and Vocational Guidance, Foundations of Industrial Arts, Practices and Trends of Industrial Arts, Organization and Administration of Industrial Arts, Child Development, and Orientation of Industrial Arts Subject Matter.

It should be noted that nineteen courses are reported, but only four of them are required by as many as 47 per cent

of the schools.

TABLE VI
COURSES IN WHICH STUDENTS OF INDUSTRIAL ARTS
DO STUDENT TEACHING

Courses	: Number : of : Cases	: Per Cent
Woodwork	: 48	: 19.3
Mechanical Drawing	: 46	: 18.4
General Shop	: 35	: 14.1
General Metal Work	: 32	: 12.7
Electricity	: 23	: 9.2
Printing	: 20	: 8.1
Architectural Drawing	: 14	: 5.6
Auto Mechanics	: 9	: 3.6
Art Metal	: 3	: 1.2
Sheet Metal	: 2	: .8
Concrete and Cement	: 2	: .8
Leather Work	: 2	: .8
Foundry	: 2	: .8
Household Mechanics	: 2	: .8
Forging	: 1	: .4
Welding	: 1	: .4
Machine Shop	: 1	: .4
Book Binding	: 1	: .4
Archery	: 1	: .4
Basketry	: 1	: .4
Pattern Making	: 1	: .4
Shop Mathematics	: 1	: .4
Toy Making	: 1	: .4

Courses open to student teaching.— The list of courses in which student teaching may be done proves to be even larger than the list of prerequisite subjects. It appears that the general shop organization, so popular at the present time, is largely responsible for the low distribution of certain less common courses.

The courses, Woodwork and Mechanical Drawing, appear almost universally as practice fields, being checked in forty-

eight and forty-six cases out of fifty-five, as shown in Table VI. Three other courses, General Shop, General Metal Work, and Electricity, are included individually by more than half of the schools replying to this question. Others, mentioned in the order of their frequency, are: Printing, Architectural Drawing, Auto Mechanics, and Art Metal. Five additional courses are found to exist in at least two cases; they are: Sheet Metal, Concrete and Cement, Leather Work, Foundry, and Household Mechanics. And those mentioned only once are: Forging, Welding, Machine Shop, Book Binding, Toy Making, Archery, Basketry, Pattern Making, and Shop Mechanics.

TABLE VII

YEAR IN WHICH STUDENT TEACHING IS OFFERED

College Class	: Number :	: Per Cent
	: of :	
	: Cases :	
Freshman	: 1 :	1.9
Sophomore	: 9 :	16.7
Junior	: 21 :	38.8
Senior	: 22 :	40.7
Graduate	: 1 :	1.9
TOTAL	54	100

Year in which student teaching is offered.— Many colleges do not limit student teaching courses to any single year, hence the per cents offering it for each classification will present the best picture of the conditions. As shown in Table VII, one college, or 1.9 per cent, offers student teaching in the freshman year. Nine colleges, or 16.7 per cent,

offer it in the sophomore year; twenty-one, or 33.8 per cent, in the junior year; and twenty-two, or 40.7 per cent, in the senior year. One college, or 1.9 per cent, offers student teaching to graduate students only.

It was found, too, that many colleges do not confine student teaching to any one semester, but arrange it to meet the departmental needs.

TABLE VIII

LEVELS IN WHICH STUDENT TEACHING IS DONE

Grade	First Course		Second Course	
	in Student Teaching		in Student Teaching	
	Number	Per Cent	Number	Per Cent
Intermediate	15	18.1	3	5.5
Junior High School	40	48.2	11	20.4
Junior-Senior High	14	16.8	10	18.6
Senior High School	13	15.7	27	50
College	1	1.2	3	5.5
TOTAL	83	100	54	100

The levels in which student teaching is done.— When more than one course in student teaching is required, it is the practice of some institutions to require that the first course be done in the lower grades, while the second course is in the upper level. The theory is to give the student teacher a wide and varied experience at or near the grade assumed for his first salaried position. Hence it is desirable that this trial experience extend across the range of grades in which industrial subjects are commonly presented.

It is shown in Table VIII that in the lower grades more student teaching is done in the first course, while in the upper grades more is done in the second course. Fifty-five, or 66 per cent, of the cases checked indicate student teaching done in the intermediate grades and junior high school. While in the second course of student teaching, the figures show that thirty-seven, or 68.6 per cent, of the replies have checked student teaching done in junior-senior high school and senior high school.

As indicated in this table, the grades in which the first course of student teaching is done are optional, as many of the colleges have checked more than one grade in which student teaching is done. This may explain why the responses do not total to the assumed numbers in the distribution.

TABLE IX

LENGTH OF COURSE IN WHICH STUDENT TEACHING IS DONE		
Length of Course in Weeks	: Number : of : Cases	: Per Cent
36	: 1	: 1.9
20	: 1	: 1.9
18	: 19	: 35.8
16	:	:
14	:	:
12	: 22	: 41.5
10	: 2	: 3.7
9	: 5	: 9.4
7	: 1	: 1.9
6	: 1	: 1.9
5	: 1	: 1.9
TOTAL	53	100
MEDIAN	11.7 weeks	
MODE	12 weeks	

Length of course in which student teaching is done.—

Considering the length of time included in the course, it would seem appropriate to tabulate the exact number of weeks rather than periods of distribution. There is a tendency to select a number of weeks comprising one of the more common fractions of the school year. In Table IX the distribution is as follows: a five weeks' term, one of the fifty-three cases; a six weeks' term, one, or 1.9 per cent, of the cases; a seven weeks' term, one, or 1.9 per cent, of the cases; a nine weeks' term, five, or 9.4 per cent, of the cases; a ten weeks' term, two, or 3.7 per cent, of the cases; a twelve weeks' term, twenty-two, or 41.5 per cent, of the cases; an eighteen weeks' term, nineteen, or 35.8 per cent,

of the cases; a twenty weeks' term, one case, and one case in a thirty-six weeks' term. The median is 11.7 weeks, and the mode is twelve weeks.

TABLE X
LENGTH OF CLASS PERIOD IN WHICH STUDENT
TEACHING IS DONE

Minutes	: Number : of : Cases	: Per Cent
150	: 1	: 1.9
140 - 149	: 1	: 1.9
130 - 139	: :	: :
120 - 129	: 6	: 11.8
110 - 119	: 1	: 1.9
100 - 109	: 3	: 6
90 - 99	: 6	: 11.8
80 - 89	: :	: :
70 - 79	: :	: :
60 - 69	: 14	: 27.4
50 - 59	: 18	: 35.3
40 - 49	: 1	: 1.9
TOTAL	51	100
MEDIAN	64.6 minutes	
MODE	55 minutes	

Length of class period in which student teaching is done.—

The range of time for length of class periods varies from forty minutes to one hundred fifty minutes. The length of the class period seems to conform to the periods in the places in which student teaching is done. The double period and other influences cause a rather wide variation in this feature of the plan. The facts as shown in Table X are: one, or 1.9 per cent, of the institutions have class periods forty to forty-nine

minutes in length; eighteen, or 35.3 per cent, have class periods from fifty to fifty-nine minutes in length; fourteen, or 27.4 per cent, have class periods from sixty to sixty-nine minutes in length; and scattering cases extend the distribution to 150 minutes. The median is 64.6 minutes. The mode falls in the interval just below, being 55 minutes. Sixty-two and seven tenths per cent of the institutions have student teaching classes between fifty and sixty-nine minutes in length.

TABLE XI

NUMBER OF MINUTES STUDENT TEACHER MEETS CLASS

Minutes per Day	: Number : of : Cases	: Per Cent
150 - 159	: 1	: 1.9
140 - 149	: :	: :
130 - 139	: :	: :
120 - 129	: 1	: 1.9
110 - 119	: 1	: 1.9
100 - 109	: 3	: 5.7
90 - 99	: 4	: 7.4
80 - 89	: 1	: 1.9
70 - 79	: 2	: 3.7
60 - 69	: 20	: 38
50 - 59	: 15	: 28.1
40 - 49	: 3	: 5.7
30 - 39	: 2	: 3.7
TOTAL	53	100
MEDIAN	63.2 minutes	
MODE	60 minutes	

Number of minutes student teacher meets class.— There is an extreme variation in the time required of student teachers in meeting student teaching classes. In Table XI is shown a

range of minutes from thirty to 159. However, many courses in student teaching have nine, twelve, eighteen, or thirty-six weeks' terms, which may account for this wide and scattering distribution of time.

According to the figures in Table XI, two, or 3.7 per cent, of the schools require student teachers to meet student teaching classes from thirty to thirty-nine minutes of the class period; three, or 5.7 per cent, require from forty to forty-nine minutes; fifteen, or 28.1 per cent, require from fifty to fifty-nine minutes; twenty, or 38 per cent, require from sixty to sixty-nine minutes, and scattering cases extend the distribution to periods ranging from 150 to 159 minutes. Sixty-six and one-tenth per cent of the colleges have student teachers meet from fifty to sixty-nine minutes for each class period. The median is 63.2 minutes, and the mode is sixty minutes.

TABLE XII

AMOUNT OF TIME SPENT BY STUDENT TEACHER IN
OBSERVING CLASS WORK

Per Cent of Time Spent in Observation	: Number : of : Cases	: Per Cent
100	: 2	: 3.8
95 - 99	: 1	: 1.9
90 - 94	: :	: :
85 - 89	: :	: :
80 - 84	: :	: :
75 - 79	: :	: :
70 - 74	: 1	: 1.9
65 - 69	: 1	: 1.9
60 - 64	: 1	: 1.9
55 - 59	: :	: :
50 - 54	: 7	: 13.2
45 - 49	: 1	: 1.9
40 - 45	: 7	: 13.2
35 - 39	: 1	: 1.9
30 - 34	: 2	: 3.8
25 - 29	: 8	: 15
20 - 24	: 3	: 5.7
15 - 19	: 2	: 3.8
10 - 14	: 7	: 13.2
5 - 9	: 3	: 5.7
0 - 4	: 6	: 11.3
TOTAL	53	100
MEDIAN	33.3 per cent	
MODE	25 per cent	

Amount of time spent by student teacher in observation.—

In many of the training centers a portion of the student teacher's time is devoted to observation. In some cases observations are the only means by which the student teacher obtains instruction in teaching techniques. In other institutions, a part of the student teachers's time is devoted to observations in order to prepare him for actual teaching.

In Table XII it is found that the per cent of time spent in observation of class work prior to teaching ranges from zero to 100 per cent. The median is 33.3 per cent, while the mode is 25 per cent. The extremes in the distribution show two, or 3.8 per cent, of the cases require student teachers to observe 100 per cent of their time, while in the other extreme, six institutions, or 11.3 per cent, require from nothing to 4 per cent of the time to be spent in observation.

TABLE XIII

AMOUNT OF TIME SPENT BY STUDENT TEACHERS IN
ACTUAL CLASSROOM TEACHING

Per Cent of Time Spent Teaching	: Number : of : Cases	: Per Cent
100	:	:
95 - 99	: 6	: 11.3
90 - 94	: 3	: 5.7
85 - 89	: 7	: 13.2
80 - 84	: 2	: 3.8
75 - 79	: 3	: 5.7
70 - 74	: 8	: 15
65 - 69	: 1	: 1.9
60 - 64	: 2	: 3.8
55 - 59	: 7	: 13.2
50 - 54	:	:
45 - 49	: 8	: 15
40 - 44	:	:
35 - 39	: 1	: 1.9
30 - 34	: 1	: 1.9
25 - 29	: 1	: 1.9
20 - 24	:	:
15 - 19	:	:
10 - 14	:	:
5 - 9	:	:
0 - 4	: 1	: 1.9
	: 2	: 3.8
TOTAL	53	100
MEDIAN		76.5 per cent

Time spent by student teachers in actual classroom teaching.— The opportunities which are offered to student teachers in actual classroom teaching are shown in Table XIII. The range of time spent in actual teaching varies from nothing to 100 per cent. The median is 76.5 per cent. Two colleges, or 3.8 per cent, permit student teachers to teach from nothing to 4 per cent of the time; while a few scattering cases permit them to teach 50 per cent of the time. It should be noted that 88.6 per cent of the supervisors permit student teachers to teach from 50 per cent to 100 per cent of the classroom time.

TABLE XIV

SEMESTER CREDIT EARNED IN STUDENT TEACHING COURSE

Semester Hour	: Number :	: Per Cent
	: of :	
	: Cases :	
1	: 1 :	1.9
2	: 7 :	13.7
3	: 29 :	56.8
4	: 7 :	13.7
5	: 5 :	10
6	: 1 :	1.9
8	: 1 :	1.9
TOTAL	51	100
MEDIAN	3.4 hours	
MODE	3 hours	

Semester credit earned in student teaching course.— There is lack of standardization in many phases of teacher training and especially so in the conduct of student teaching. The credit earned in such courses ranges from one to eight

semester hours. The median is 3.4 hours, while the mode is three semester hours. The distribution of credit (Table XIV), is as follows: one semester hour, one, or 1.9 per cent of the schools; two semester hours, seven, or 13.7 per cent of the schools; three semester hours, twenty-nine, or 56.8 per cent of the schools; four semester hours, seven, or 13.7 per cent of the schools; five semester hours, five, or 10 per cent of the schools. Two schools report eight semester hours each, or 1.9 per cent of the schools.

Summary

I. Training and experience of supervisors.— 1. Only one supervisor is shown without a degree; five, or 9.5 per cent, have earned the B. S. or the A. B. degree; forty-five, or 84.9 per cent, have earned the Master's degree; and two, or 3.8 per cent, have earned the degree of Doctor of Philosophy.

2. Those who replied to the check list show a teaching experience varying from three to fifty years, with a median of 19.8 years.

3. The range of experience in supervising student teachers is from three to forty years, the median being 11.7 years.

II. Types of schools.— Of the fifty-five institutions cooperating in this study, 40 per cent have training schools; 32.2 per cent indicate that student teaching is done in the

college industrial arts department; 25.5 per cent indicate that student teaching is done in the city school system; 1.1 per cent indicate that student teaching is done in the county schools, and 1.1 per cent that it is done in the township schools.

III. Method courses prerequisite to student teaching.—

From the fifty-five replies received it is found that 16.9 per cent of the schools require The Organization of Industrial Arts as a prerequisite to student teaching; Content and Methods of Industrial Arts is required by 12.3 per cent; while Techniques of Industrial Arts and Problems of Industrial Arts each are required by 9.2 per cent of the schools. It should be noted that nineteen courses are reported, but only four of them are required by as many as 47 per cent of the schools.

IV. Courses open, year offered, and levels upon which student teaching is done.— 1. The courses, Woodwork and Mechanical Drawing, appear almost universally as practice fields. Three other courses, General Shop, General Metal Work, and Electricity, are included individually by more than half of the schools replying to the check list.

2. One college offers student teaching in the freshman year; nine colleges offer it in the sophomore year; twenty-one offer it in the junior year; and twenty-two, or 40.7 per cent, in the senior year. One college offers student teaching to graduates only.

3. It is found that in the lower grades more student

teaching is done in the first course, while in the upper grades more is done in the second course. Of the fifty-five replies, 66 per cent checked student teaching done in the intermediate grades and in junior high school, while 68.6 per cent indicate student teaching done in junior-senior high school and senior high school.

V. Length of course and length of class period.— 1. The length of the course in which student teaching is done has a median of 11.7 weeks, while the mode is twelve weeks.

2. The median for the length of the class period in which student teaching is done is 64.6 minutes.

VI. Amount of time spent by student teacher in class, in observation, and in actual classroom teaching.— 1. The median for the number of minutes the student teacher meets the class is 63.2; the mode is 60 minutes.

2. The median for the amount of time spent by the student teacher in observing class work is 33.3 per cent; the mode is 25 per cent.

3. The median for the amount of time spent by the student teacher in actual classroom teaching is 76.5 per cent.

VII. Semester credit earned.— The median for the semester credit earned in the student teaching course is 3.4 hours. Twenty-nine, or 56.8 per cent, of the cases report a credit of three semester hours.

CHAPTER III

AN ANALYSIS OF SIGNIFICANT VARIATIONS AND IMPORTANT CENTRAL TENDENCIES IN THE TECHNIQUE OF SUPERVISION OF STUDENT TEACHERS

In the preceding chapter practices are discussed as they are found in the colleges which are engaged in the training of teachers in the field of industrial education.

It would have been of interest to those who are concerned with supervising student teachers to have included in the discussion such other topics as: the nature of the teaching experience of these supervisors prior to their present position, the educational status of student teachers, the teaching experience of the student teachers prior to their directed teaching, and the condition and quantity of teaching equipment and facilities as found in these institutions. Time, however, does not permit as extensive a study as was desired. Hence a few of the more important problems are selected.

The purpose of this chapter is to analyze significant variations and important central tendencies in the techniques of supervision of student teachers as found in these various institutions under consideration.

The chapter treats of such topics as:

1. The use of the course of study and lesson plans.
2. Number of days in advance lesson plans are submitted for approval of supervisor.
3. The present practices concerning observation.

4. The present practices concerning conferences.
5. Responsibilities of student teachers.
6. Per cent of time the supervisor is in the classroom with the student teacher at the beginning of his student teaching.
7. Per cent of time the supervisor is in the classroom with the student teacher during the latter part of his student teaching.
8. Per cent of time per semester the supervisor remains in class with the student teacher.
9. Other techniques of supervision.

TABLE XV

THE USE OF THE COURSE OF STUDY AND LESSON PLANS

	Cases Replied		Per Cent	
	Yes	No	Yes	No
Are student teachers required to make a course of study?	22	31	41.5	58.5
Do you permit student teachers to select their own teaching unit?	29	24	54.7	45.2
Are student teachers required to make their own teaching unit?	41	12	77.3	22.6
Are these "units" based on the course of study used by the supervisor?	44	8	84.6	15.3
Are student teachers required to make a weekly lesson plan?	25	28	47.1	52.8
Do student teachers follow a special form in making their own lesson plans?	21	28	42.8	57.1
Are lesson plans submitted for review and approval before the student teacher is permitted to teach the lesson?	45	7	86.5	13.4

The use of the course of study and lesson plans.— Many and varied are the practices that have been found concerning the requirement that student teachers make their own course of study and lesson plans. In a number of teacher training

centers the student teachers are required to meet directed teaching courses for a part of the school year. In these cases the courses of study are planned, usually for the duration of the period. For this reason a few of the institutions offer directed teaching courses which last for a shorter time than the duration of each course. It is discovered that twenty-two, or 41.5 per cent, of the fifty-three schools responding require that student teachers make a course of study, while thirty-one, or 58.5 per cent, of the schools do not make this requirement.

In the field of industrial education much of the material is presented in large or small teaching units. Whether teaching is based on the project plan or on the unit plan, it is shown that out of fifty-three schools replying to the check list twenty-nine, or 54.7 per cent, permit student teachers to select their own teaching unit, and twenty-four, or 45.2 per cent, do not allow the student teachers to select their own teaching unit.

In most cases the student teacher is required to make his own teaching unit. Out of fifty-three replies, forty-one, or 77.3 per cent, require student teachers to make their own teaching unit, while twelve, or 22.6 per cent, do not make this requirement.

In fifty-two replies it was found that forty-four, or 84.6 per cent, require that the teaching units made by the student teachers be based on the course of study used by the supervisor. Eight, or 15.3 per cent, of the schools do not require

that the teaching units be based on the supervisor's course of study.

Lesson plans are among the details usually included in a program of student teaching. Of the fifty-three replies, twenty-five, or 47.1 per cent, indicate that a weekly lesson plan is required of student teachers; twenty-eight, or 52.8 per cent, do not require a weekly lesson plan.

Twenty-one, or 42.8 per cent, of the schools require that the student teachers follow a special form in making lesson plans; twenty-eight, or 57.1 per cent, make no such requirement.

Of the fifty-two replies received, forty-five, or 86.5 per cent, indicate that lesson plans, teaching units, and courses of study are submitted to the supervisor for review and approval; seven, or 13.4 per cent, of the schools do not require that this procedure be followed.

TABLE XVI

NUMBER OF DAYS IN ADVANCE LESSON PLANS ARE SUBMITTED
FOR APPROVAL OF SUPERVISOR

Days	Cases	Per Cent
0	2	4.3
1	5	10.6
2	16	34
3	9	19.1
4	3	6.4
5	3	6.4
6	2	4.3
7	7	14.9
TOTAL	47	100
MEDIAN	2.1 days	
MODE	2 days	

Number of days in advance lesson plans are submitted for approval of supervisor.-- The number of days in advance lesson plans are submitted for the approval of the supervisor ranges from zero to seven days. Seven, or 14.9 per cent, of the supervisors require that lesson plans be submitted seven days in advance for approval. Two, or 4.3 per cent, do not require lesson plans to be submitted in advance. The median number of days for lesson plans to be submitted in advance is 2.1; the mode is two days.

TABLE XVII

THE PRESENT PRACTICES CONCERNING OBSERVATION

	Cases Replied		Per Cent	
	Yes	No	Yes	No
Do student teachers observe the supervisor teach?	54	1	98.2	1.8
Do student teachers observe each other teach?	33	19	63.4	36.5
Are these observations discussed in a general conference?	39	12	76.4	23.5
Are these observations discussed in individual conferences?	48	4	92.3	7.0
Are student teachers given an observation outline to guide them in observations?	26	29	47.2	52.8

The present practices concerning observation.— One method of giving professional training to prospective teachers is through observation. A previous study, made by Cass,¹ disclosed that 57.1 per cent of the total reporting show that observation was required of all students, regardless of previous teaching experience.

Courses in the observation of classroom work are to be

¹Cass, op. cit., p. 22.

found in the curricula of practically all teacher training schools. They are also coming into favor in the universities that offer instruction in the theory and practice of education. It is the writer's belief that observation of expert teaching forms an indispensable part of the candidate's training.

"Students who enter upon their practice teaching after a systematic course of observation under supervision do much better work at the outset, make fewer mistakes, and apply their theoretical pedagogy more effectively than the students who go to classes without this preparatory observation."²

A few of the facts concerning present practices in observation are presented in Table XVII. Fifty-four, or 98.2 per cent, of the institutions indicate that student teachers observe the supervisor at work, while one, or 1.8 per cent, answers in the negative.

One of the most effective means of training prospective teachers of industrial education is to have them observe each other teach. Of the fifty-two replies received to this question thirty-three, or 63.4 per cent, state that student teachers observe each other at work; nineteen, or 36.5 per cent, indicate no such practice in their institutions.

Of the fifty-one replies to the question whether observations are discussed in a general conference thirty-nine, or 76.4 per cent, are in the affirmative, and twelve, or 23.5

²W. C. Bagley, Classroom Management (New York, the Macmillan Co., 1918), p. 275.

per cent, are in the negative.

Of the fifty-two replies to the question whether it is the custom to discuss observations in individual conferences forty-eight, or 92.3 per cent, are in the affirmative, and four, or 7.6 per cent, in the negative.

It is interesting to note how many of the supervisors of student teachers in these institutions give observation outlines to student teachers to guide them in their observations. Of the fifty-five replies to this question, twenty-six, or 47.2 per cent, indicate that such outlines are supplied, while twenty-nine, or 52.8 per cent, say they are not supplied.

TABLE XVIII

THE PRESENT PRACTICES CONCERNING CONFERENCES

	Cases Replied		Per Cent	
	Yes	No	Yes	No
Are teaching faults mentioned at first conferences with student teachers?	29	25	53.7	46.3
Are all teaching criticisms mentioned in the first conference?	27	38	30.9	69.1
Do you point out a few teaching faults at each meeting?	44	7	86	14
In the criticisms do you mention good points as well as faulty ones?	53	2	96.3	3.7
Do you request of student teachers self-criticism of their teaching?	50	5	90.9	9.1
Are conferences held with student teachers following the lesson taught?	37	14	72.5	27.5
Are conferences held only when there is a need?	24	19	55.8	44.2
Are weekly group conferences held with student teachers?	38	16	70.3	29.7

The present practices concerning conferences.— Conferences, whether group, individual, pre-teaching, or following the

lesson taught are indispensable in the training and supervision of student teachers. Through these conferences the critic teacher or supervisor is able to give any assistance that may be necessary in guiding the student teacher. A few questions were set forth concerning conferences held with student teachers in order to obtain some of the techniques used by supervisors in conducting such conferences.

Of the fifty-four replies to the question whether teaching faults are mentioned in the first conference with student teachers twenty-nine, or 53.7 per cent, answer in the affirmative, while twenty-five, or 46.3 per cent, answer in the negative.

Twenty-seven, or 30.9 per cent, of the supervisors mention all teaching faults in the first conference, while thirty-eight, or 69.1 per cent, do not follow this procedure.

Forty-four, or 86 per cent, of the supervisors state that a few teaching criticisms are mentioned at each meeting; seven, or 14 per cent, of the supervisors either mention all the criticisms or none at all.

Fifty-three, or 96.3 per cent, of the supervisors indicate that good points of teaching as well as faulty ones are mentioned at each conference; two, or 3.7 per cent, make no mention of either good or bad points.

It was found that in fifty cases, or 90.9 per cent, the student teachers are required to make a self-criticism of their teaching, while in five cases, or 9.1 per cent, no such requirement is made.

Thirty-seven supervisors, or 72.5 per cent, hold conferences following the lesson taught; fourteen supervisors, or 27.5 per cent, do not hold conferences following the lesson taught.

Twenty-four, or 55.8 per cent, of the total number answering the check list report that conferences are held only when there is a need.

Weekly group conferences are held by thirty-eight critic teachers or supervisors, or 70.3 per cent of the cases.

TABLE XIX
RESPONSIBILITIES OF STUDENT TEACHERS

	Cases Replied		Per Cent	
	Yes	No	Yes	No
Do student teachers have full responsibility in handling class problems?	28	25	52.8	47.2
Do student teachers refer class problems to the supervisor?	37	11	81.2	18.8
Do you leave the selection of projects to the student teacher in charge?	25	23	52	48
Do student teachers meet after school when necessary?	46	8	85.1	14.9
Do student teachers participate in the capacity of a regular classroom teacher, supervising class work, administering tests, grading tests, etc.?	50	3	94.3	5.7
Do you consider the ratings given to the pupils by student teachers as a basis for grading these pupils?	36	16	69.2	30.8
Do student teachers make reports of professional readings assigned by the supervisor?	28	26	52.8	47.2
Do student teachers make requisitions, inventory sheets, and other reports?	37	17	81.2	18.8

TABLE XIX (Continued)

RESPONSIBILITIES OF STUDENT TEACHERS

	Cases Replied		Per Cent	
	Yes	No	Yes	No
Do student teachers participate in the construction of materials and devices for shop and classroom use?	53	1	98.1	1.9

Responsibilities of student teachers.— In Table XIX a distribution is shown of the responsibilities of student teachers as found in the various teacher training institutions cooperating in this study.

Out of the fifty-three replies to the question whether student teachers have full responsibility in handling class problems twenty-eight, or 52.8 per cent, are in the affirmative, while twenty-five, or 47.2 per cent, are in the negative.

Thirty-seven, or 81.2 per cent, of the cases refer class problems to the supervising teacher; eleven, or 18.8 per cent, leave the class problems to the student teacher in charge.

In the matter of selecting class projects twenty-five, or 52 per cent, of the supervisors report it is left to the student teacher in charge; twenty-three, or 48 per cent, of the supervisors assume this responsibility themselves.

Out of the fifty-three replies, fifty, or 94.7 per cent, of the supervisors report that student teachers participate in the capacity of a regular classroom teacher, supervising

class work, administering tests, grading tests, etc. Only three institutions, or 5.7 per cent, report that student teachers do not participate in the capacity of a regular classroom teacher.

Thirty-six, or 69.2 per cent, of the institutions consider the ratings given to the pupils by the student teacher as a basis for grading these pupils; sixteen, or 30.8 per cent, do not consider these ratings as a basis for grading pupils.

Twenty-eight, or 52.8 per cent, of the supervisors of student teachers require reports on professional readings assigned; twenty-six, or 47.2 per cent, of the supervisors do not make this requirement.

Every student teacher, before graduation, ought to be familiar with the making of requisitions, inventory sheets, and other classroom records. Thirty-seven, or 81.2 per cent, of the institutions report that their student teachers engage in such activities; seventeen, or 18.8 per cent, of the institutions make no such requirement.

Of the fifty-four replies received concerning this point, fifty-three, or 98.1 per cent, report that student teachers participate in the construction of materials and devices for shop and classroom use. Only one reply, or 1.9 per cent, indicates that student teachers do not participate in such activities.

TABLE XX

PER CENT OF TIME SUPERVISOR IS IN CLASSROOM WITH STUDENT
TEACHER AT THE BEGINNING OF HIS STUDENT TEACHING

Per Cent of Time Supervisor Is in Classroom	Cases	Per Cent
100	32	64
90 - 99	5	10
80 - 89		
70 - 79	3	6
60 - 69		
50 - 59	2	4
40 - 49	1	2
30 - 39	1	2
20 - 29	3	6
10 - 19	2	4
0 - 9	1	2
TOTAL	50	
MEDIAN	92.1 per cent	
MODE	100 per cent	

Per cent of time supervisor is in classroom with student teacher at the beginning of his student teaching.— It is interesting to note what portion of time is spent by the supervisor with student teachers at the various stages of their student teaching. The range in per cent of time spent by the supervisor in the class with student teachers is from zero to 100 per cent.

Thirty-two supervisors report that during the student teacher's early teaching period they remain with him in the classroom the full time.

One supervisor reports that less than 10 per cent of his time is spent in class with beginning student teachers.

It should be noted that forty of the fifty replies received indicate that the supervisor remains in the classroom with the beginning student teacher from 70 to 100 per cent of the time.

The median per cent of time spent with beginning student teachers is 92.1, the mode is 100 per cent.

TABLE XXI

PER CENT OF TIME SUPERVISOR IS IN CLASSROOM WITH STUDENT
TEACHER THE LATTER PART OF HIS STUDENT TEACHING

Per Cent of Time Supervisor Is in Classroom	Cases	Per Cent
100	9	17.6
90 - 99	5	9.8
80 - 89	3	5.8
70 - 79	8	15.6
60 - 69	2	2.9
50 - 59	10	19.6
40 - 49	1	1.9
30 - 39	2	3.9
20 - 29	5	9.8
10 - 19	1	1.9
0 - 9	5	9.8
TOTAL	51	
MEDIAN	67.5 per cent	
MODE	52.5 per cent	

Per cent of time the supervisor is in the classroom with the student teacher the latter part of his student teaching.— In several of the institutions the first few weeks of teaching is done by the supervisor while the student teacher observes. In others, the student teacher takes immediate charge of the class, under the supervisor's direction. As the semester progresses the student teacher is given more liberty in

his class work, as is shown in Table XXI. The distribution of cases in this table is somewhat varied, as compared with Table XX.

Nine, or 17.6 per cent, of the supervisors report that they remain in the class 100 per cent of the time when the student teachers are in the latter part of their student teaching.

Five, or 9.8 per cent, of the supervisors remain in class with student teachers less than 10 per cent of the time when they are in the latter part of their student teaching.

The median per cent of time the supervisor is in class with the student teacher during the latter part of his student teaching is 67.5; the mode is 52.5 per cent of time.

TABLE XXII

PER CENT OF TIME PER SEMESTER SUPERVISOR REMAINS IN CLASS WITH STUDENT TEACHER

Per Cent of Time Supervisor Is in Classroom	Cases	Per Cent
100	12	25.5
90 - 99	6	12.7
80 - 89	2	4.2
70 - 79	8	17
60 - 69	2	4.2
50 - 59	7	14.8
40 - 49	2	4.2
30 - 39	2	4.2
20 - 29	4	8.5
10 - 19		
0 - 9	2	4.2
TOTAL	47	
MEDIAN	77.5 per cent	
MODE	100 per cent	

Per cent of time per semester the supervisor remains in the class with the student teacher.— In many institutions the supervisors remain in the class with the student teacher the full time, either teaching the class or observing the student teacher at work. In a few of the institutions, the supervisors remain in the class with the student teacher for a short time, leave the teaching entirely to him, and only drop in occasionally to see how he is getting along.

The variables of such practices are set forth in Table XXII. The total time the supervisor remains in the class with the student teacher is expressed in terms of per cent, which ranges from zero to 100 per cent. Out of forty-seven replies to the inquiry how long per semester the supervisor remains in the class with the student teachers twelve, or 25.5 per cent, remain throughout the duration of the semester. Two, or 4.2 per cent, of the supervisors remain less than 10 per cent of the semester in the class with the student teachers. More than three-fourths of the supervisors remain in class with the student teachers from 50 to 100 per cent of the semester. The median is 77.5 per cent of the total time; the mode is 100 per cent.

Other techniques of supervision.— Due to the lack of uniformity which exists among the colleges in the supervision of student teachers, it was difficult, in many instances, for the supervisor to check all items in the check list exactly to fit the program of his institution. As a result, several

supervisors have made, concerning part of the check list, personal statements which more nearly describe the situation obtaining in their institutions. In addition, many of them have sent material which gives further explanation of their organizations. It is necessary to include in this study these variables as found concerning course of study, observation, conferences, responsibilities of student teachers, and the rating given pupils by student teachers.

As is apparent from a study of Table XV, a course of study is not required of student teachers in most cases. This may be due to two reasons. First, the institution in which student teaching is offered prescribes the course of study for the entire school, in which case the student teacher is relieved of that duty. Second, courses of study in certain institutions are based upon a whole year, while the student teaching course prevails, in most cases, for a shorter period of time. In such case, if the student teachers were required to make a course of study, there would be as many courses as student teachers, which would make for lack of unity in the program.

One supervisor reports that, due to the fact that student teaching in his school is done outside of the city, his student teachers are required to make their own courses of study.

A few of the supervisors indicate that daily lesson plans and demonstration plans are required in preference to the weekly lesson plan.

One supervisor requires that student teachers make their

lesson plans for the next day immediately following the class they have just taught. These plans are then submitted to him. On the next day, just before the class assembles, the plans are discussed with the student teacher.

One supervisor states that the lesson plans in his school are based upon the syllabus produced by the training school.

A few of the supervisors state that student teachers are permitted to select their own teaching unit upon consultation with the critic teacher.

The number of days in advance a lesson plan is submitted for the approval of the supervisor varies somewhat. A few supervisors indicate that the number of days depends largely upon the type of the student in charge.

A few supervisors report that student teachers observe the critic teacher at work only occasionally. A few report that student teachers observe each other teach occasionally.

Some of the supervisors say they mention criticisms in a general way in a conference with the student teachers. One supervisor states that as many criticisms are made as the situation calls for. Another reports that criticisms are not made at the first conference. Another states that criticisms are not mentioned directly, only indirectly. One supervisor states that all student teaching conferences are confined to individual conferences. Another school reports that the student teachers do their directed teaching off the campus. These cases are visited by the supervisor three times in ten weeks.

In replying to the question of referring class problems to the critic teacher, one supervisor says that it depends largely upon the seriousness of the problem.

In the matter of the selection of class projects several supervisors indicate that student teachers are permitted to use their own judgment to some extent in the selection of class projects, but they must first consult the critic teacher.

A few supervisors indicate that student teachers are permitted to participate in the capacity of regular classroom teachers only occasionally.

Two supervisors permit student teachers to assist in making requisitions, inventory sheets, and other reports.

Two supervisors report that some consideration is given to the student teacher's rating of pupils.

Summary

1. The use of the course of study and lesson plans.— 1. Of the fifty-three institutions that filled out the check list, 41.5 per cent of the supervisors require that student teachers make a course of study, while 58.5 per cent do not require this duty of student teachers.

2. Twenty-nine, or 54.7 per cent, of the supervisors permit student teachers to select their own teaching unit. Twenty-four, or 45.2 per cent, do not permit student teachers to select their own teaching unit.

3. Forty-one, or 77.3 per cent, of the supervisors

require student teachers to make their own teaching unit; twelve, or 22.6 per cent, do not make this requirement.

4. Forty-four, or 84.6 per cent, of the supervisors require that the teaching units be based on the course of study used by the critic teacher. Eight, or 15.3 per cent, do not require that teaching units be based on the course of study used by the critic teacher.

5. Twenty-five, or 47.1 per cent, of the supervisors require a weekly lesson plan; twenty-eight, or 52.8 per cent, do not require a weekly lesson plan.

6. Twenty-one, or 42.8 per cent, of the supervisors require that student teachers follow a special form in making their lesson plans; twenty-eight, or 57.1 per cent, do not make this requirement.

7. Twenty-six, or 47.2 per cent, of the supervisors indicate that teaching outlines are supplied, while twenty-nine, or 52.8 per cent, do not supply teaching outlines.

II. Number of days in advance lesson plans are submitted for the approval of the supervisor.— 1. Forty-five, or 86.4 per cent, of the supervisors require that lesson plans be submitted for review and approval before the student teacher is permitted to teach the lesson; seven, or 13.4 per cent, do not make this requirement.

2. The number of days in advance that lesson plans are required to be submitted for the approval of the supervisor ranges from zero to seven. The median is 2.1 days; the

mode is two days.

III. The present practices concerning observation.— 1. Fifty-four, or 98.2 per cent, of the supervisors indicate that student teachers observe the critic teacher at work, while one, or 1.8 per cent, answers in the negative.

2. Thirty-three, or 63.4 per cent, of the supervisors state that student teachers observe each other at work; nineteen, or 36.5 per cent, do not follow this procedure.

IV. The present practices concerning conferences.— 1. To the question whether observations are discussed in a general conference thirty-nine, or 76.4 per cent, of the supervisors answered in the affirmative, and twelve, or 23.5 per cent, answered in the negative.

2. Forty-eight, or 92.3 per cent, of the supervisors report that observations are discussed in individual conferences; four, or 7.6 per cent, do not discuss observations in an individual conference.

3. Twenty-nine, or 53.7 per cent, of the supervisors mention teaching faults at the first conference, while twenty-five, or 46.3 per cent, do not.

4. Twenty-seven, or 30.9 per cent, of the supervisors mention all teaching criticisms in the first conference, while thirty-eight, or 69.1 per cent, do not follow this procedure.

5. Fifty-three, or 96.3 per cent, of the supervisors mention a few teaching faults at each conference, while seven, or 14 per cent, do not.

6. Fifty-three, or 96.3 per cent, of the supervisors

mention good points as well as the faulty ones; only five, or 9.1 per cent, do not.

7. Thirty-seven, or 72.5 per cent, of the supervisors hold conferences with the student teacher following the lesson taught; fourteen, or 27.5 per cent, do not hold a conference with the student teacher following the lesson taught.

8. Twenty-four, or 55.8 per cent, of the supervisors report that a conference is held with student teachers only when there is a need; nineteen, or 44.2 per cent, do not follow this plan.

9. Thirty-eight, or 70.3 per cent, of the supervisors hold weekly group conferences; sixteen, or 29.7 per cent, do not.

V. Responsibilities of student teachers.— 1. A self-criticism of the work of the student teacher is required by fifty, or 90.9 per cent, of the supervisors; five, or 9.1 per cent, do not make this requirement.

2. In answering the question whether student teachers are permitted to have full responsibility in handling class problems twenty-eight, or 52.8 per cent, of the supervisors reply in the affirmative, and twenty-five, or 47.2 per cent, in the negative.

3. Thirty-seven, or 81.2 per cent, of the supervisors have student teachers refer class problems to the critic teacher; eleven, or 18.8 per cent, do not.

4. Twenty-five, or 52 per cent, of the supervisors

leave the selection of class projects to the student teacher; twenty-three, or 48 per cent, do not follow this procedure.

5. Forty-six, or 85.1 per cent, of the supervisors require that student teachers meet after school when necessary; eight, or 14.9 per cent, do not.

6. Fifty, or 94.3 per cent, of the supervisors indicate that student teachers participate in the capacity of regular classroom teachers; only three, or 5.7 per cent, do not make this requirement of student teachers.

7. Thirty-six, or 69.2 per cent, of the supervisors consider the ratings given to the pupils by student teachers as a basis for grading pupils; sixteen, or 30.8 per cent, do not.

8. Twenty-eight, or 52.8 per cent, of the supervisors require that student teachers make reports of professional readings; twenty-six, or 47.2 per cent, do not make this requirement.

9. Thirty-seven, or 81.2 per cent, of the supervisors require that student teachers make requisitions, inventory sheets, and other reports; seventeen, or 18.8 per cent, do not make this requirement.

10. Fifty-three, or 98.1 per cent, of the supervisors require that student teachers participate in the construction of materials and devices for shop and classroom use; only one, or 1.9 per cent, does not make this requirement.

VI. Per cent of time the supervisor is in the classroom with the student teacher at the beginning of his student

teaching.— The per cent of time the supervisor is in the classroom with the student teacher at the beginning of his student teaching is from zero to 100 per cent. The median is 92.1 per cent; the mode is 100 per cent.

VII. Per cent of time the supervisor is in the classroom with the student teacher the latter part of his student teaching.— The per cent of time the supervisor is in the classroom with the student teacher the latter part of his student teaching varies from zero to 100 per cent. The median is 67.5 per cent; the mode is 52.5 per cent.

VIII. Per cent of time per semester supervisor remains in class with the student teacher.— The per cent of time per semester the supervisor remains in class with the student teacher is from zero to 100 per cent. The median is 77.5 per cent; the mode is 100 per cent.

CHAPTER IV

A MEANS OF EVALUATING STUDENT TEACHERS

Many rating scales and score cards have been produced and tried out on the teaching profession. These rating scales may be classified into three groups, namely: administrative, supervisory, and self-rating. The first is designed to determine whether the teacher should be retained in service, advanced in status, or receive an increase in salary. Never does it attempt to diagnose the causes of failure or success. The latter two groups are designed to improve the efficiency of the teacher by concentrating his attention upon the analysis of the teaching process, a procedure which tends to discover his abilities and deficiencies in more or less detail.

The last two rating scales mentioned possibly concern the supervisor more than does the first one. The writer does not mean to minimize the value of the administrative form of rating, but it does not lend itself directly to the improvement of instruction, as does the supervisory form and the self-rating scale.

There are many difficulties that confront the supervisor of teachers in the field of industrial education. One of the greatest of these is the general lack of any accepted standards or criteria whereby the student teachers may be judged and rated, or the efficiency of their teaching measured and evaluated. In Table XXIII some facts are presented concerning

the rating and evaluating of teaching, as found in the fifty-five institutions which replied to the check list sent out at the beginning of this study.

TABLE XXIII
RATING OF STUDENT TEACHERS

	Cases Replied		Per Cent	
	Yes	No	Yes	No
Is a rating scale used for the grading of student teachers?	33	22	60	40
Do you base your final rating of your student teachers on your own judgment?	35	18	66	34
Do you base your final rating on a cooperative plan with the other teachers who offer professional courses in industrial arts?	23	29	44.2	55.8
Do you give a final semester test and use it as a basis for determining final rating?	8	46	14.8	85.2

The rating of student teachers.— Grades, and not salaries, are the rewards of student teaching. For this reason the plan of rating is an important matter, especially to the student teacher, for when he applies for a position he must use this rating as a testimonial of his ability or success as a teacher.

Of the fifty-five institutions replying to the question whether some form of rating scale is used for student teachers,

thirty-three, or 60 per cent, answer in the affirmative; twenty-two institutions, or 40 per cent, use no rating scale for student teachers.

Thirty-five, or 66 per cent, of the supervisors base their final rating of the ability of student teachers partially or wholly upon their own judgment; eighteen, or 34 per cent, of the supervisors resort to some other means of rating student teachers.

Twenty-three, or 44.2 per cent, of the supervisors report that they base their rating of student teachers on a cooperative plan with other teachers offering professional courses in the industrial arts department. Twenty-nine, or 55.8 per cent, of the supervisors do not follow this procedure.

Forty-six, or 85.2 per cent, of the supervisors report that the final rating of student teachers is not based on a final semester test. Only eight, or 14.8 per cent, base their final rating of student teachers on a final semester test.

Further techniques of rating student teachers.-- Two supervisors report that some consideration is given to the student teacher's rating of pupils.

In the rating of student teachers, one supervisor reports that his student teachers are rated by the critic teacher and the director of the laboratory.

One supervisor states that student teachers are rated by the principal of the county schools.

Another supervisor mentions that the final ratings of student teachers are left to the judgment of the director of

the curriculum after he has had a conference with the supervisor. Both of these persons submit written grades. If a great difference exists, a conference of all concerned is then held.

One supervisor rates his student teachers by evaluating their lesson plans and other related materials, while another rates them upon the actual product of their pupils.

Rating forms are used in more than one-half of the institutions reporting on this item in the check list. Some institutions use a standard rating form, but as no particular form was named more than once, it is impossible to generalize upon the practice.

Seventeen different rating forms were received with the formal responses to the check list. Ten of these forms were similar in that they enumerate characteristics upon which the student teacher is judged, and then provide spaces for checking the grade. A five-point grading scale is the one most frequently used. One form provides for scoring by quartile rankings. Two have the same system of enumerating characteristics, but instead of a rating system they leave spaces for comments. Two forms provide a system of weighted values, by which items are to be scored. One of these is unique in that it is planned for teachers of industrial arts. A majority of the points to be scored have to do with the shop, however, rather than with the teacher.

The self-rating scale.— The many criticisms aimed at rating scales are in reality criticisms, not of rating scales

as such, but of their construction and administration. Much of the student teacher's dissatisfaction with rating scales lies in the fact that he not only has no part in devising them, but he never sees his rating afterward. One could scarcely expect a marked improvement in teaching when such a plan is in use. A plan whereby self-improvement is based upon self-analysis will produce much better results.

The ultimate purpose of a self-rating scale is to stimulate the teacher to an intelligent self-criticism of his work. He should apply the scale to his work at frequent intervals, and compare each rating with previous ratings. Such a practice would result in the stimulation of self-study, self-analysis, self-appraisal, and self-improvement on the part of the teacher. The use of a self-rating scale, such as is given below, is a means of analyzing and evaluating one's own work with a view to appraising it and improving it.

A self-rating check list which was prepared by Riggs was used as a basis for the construction of the one which appears in this chapter.¹ Although seventeen rating scales were received from institutions cooperating in this study, none of them were used in the preparation of this check list.

¹ Hazel Riggs, A Plan for Supervision for Paducah Public Schools, unpublished Master of Arts thesis, Western Kentucky State Teachers College, Bowling Green, Kentucky, 1936, p.73.

A Self-Rating Scale for Teachers

Leading to

Self-Improvement through Self-Criticism

Name of Teacher _____

Type of Shopwork _____

School _____

Date of Rating _____

Instructional Skills

	:	Low	:	Ave.	:	High
To what extent have I been successful	:		:		:	
I. <u>In Making Assignments?</u>	:		:		:	
1. Have I made clear to the student the problem to be solved?	:		:		:	
2. Have I given the assignment in terms of the nature and training of the individual?	:		:		:	
3. Have I given the assignment in terms of the particular physical and mental activity involved?	:		:		:	
4. Have I provided the child with a motive for studying the problem assigned?	:		:		:	
5. Have I told definitely where to find the material needed in solving the problem?	:		:		:	

Low Five High

- 6. Have I shown the student where to obtain illustrative material and encouraged him to bring it to class?
- 7. Have I taught the student to use many books in solving problems?
- 8. Have I taught the student to discriminate in collecting data?
- 9. Do I encourage the pupil's initiative always?

II. Do I Make Preparation for the Lessons?

- 1. Is the aim apparent in the development of the lesson?
- 2. Is the aim clear to the pupils?
- 3. Is the aim worth while?
- 4. Is adequate illustrative and supplementary material provided?

III. Is there Evidence of a Lesson Plan?

- 1. Is my lesson plan
 - a. Drill?
 - b. Appreciation?
 - c. Problem solving?
 - d. Developmental?

	Low	Ave.	High
e. Question and answer?	:	:	:
f. Test book?	:	:	:
g. Socialized discussion?	:	:	:
h. Lecture or talk?	:	:	:
i. Reports?	:	:	:
j. Job analysis?	:	:	:
k. Demonstration?	:	:	:
2. Is my introduction	:	:	:
a. Based on pupils' previous knowledge?	:	:	:
b. Sufficiently stimulating to give purpose to the learning activity?	:	:	:
3. Do I know the art of questioning?	:	:	:
a. Do I keep the method of the learner in mind?	:	:	:
b. Do I maintain clear significant unities?	:	:	:
c. Is my language clear and can it be understood?	:	:	:
d. Do my questions require clear and rapid thinking?	:	:	:
e. Do I give rapid drill questions?	:	:	:

	Low	Ave.	High
f. Do I maintain a slow pace when asking thought questions?	:	:	:
g. Do I anticipate answers?	:	:	:
h. Do I evaluate my questions?	:	:	:
i. Do I usually give the question first to the class and name the pupil later?	:	:	:
j. Do I secure a fair distribution of questions by some device?	:	:	:
k. Do I avoid repetition of pupils' answers?	:	:	:
l. Do I avoid repetition of questions?	:	:	:
m. Am I polite at all times?	:	:	:
4. Do I keep the method of the learner in mind?	:	:	:
a. Does the student see the problem as a whole?	:	:	:
b. Does he analyze the problem into parts?	:	:	:
c. Do I drill and drill until the habit is formed?	:	:	:

	Low	Ave.	High
5. Do I have good technique? :	:	:	:
a. Do I provide for individual differences in pupils?	:	:	:
b. Are my assignments clear and definite?	:	:	:
c. Do I develop initiative on the part of my pupils?	:	:	:
d. Does a large percentage of the students take part in the recitation?	:	:	:
e. Do I use suggestions of students to advantage?	:	:	:
f. Do I keep the class discussion within the pupils' comprehension?	:	:	:
g. Do I analyze the results of standard tests so as to use them in improving the work of individual students?	:	:	:
h. Do I correlate my work with different subjects?	:	:	:
i. Do I use large units of work?	:	:	:
j. Do the pupils make good voluntary contributions?	:	:	:
k. Do pupils participate whole-heartedly?	:	:	:

	Low	Ave.	High
1. Do the lessons show:	:	:	:
the use of material:	:	:	:
in the solution of :	:	:	:
present or future :	:	:	:
problems?	:	:	:
6. Have I selected good	:	:	:
devices?	:	:	:
a. Are my devices in-	:	:	:
teresting?	:	:	:
b. Are my devices	:	:	:
challenging?	:	:	:
c. Are my devices va-	:	:	:
ried?	:	:	:
d. Do I make use of	:	:	:
economically timed :	:	:	:
drill devices?	:	:	:
e. Do I endeavor to	:	:	:
discover the stu- :	:	:	:
dents' difficulties:	:	:	:
by the use of diag- :	:	:	:
nostic tests and by :	:	:	:
keeping a record of :	:	:	:
the errors of indi- :	:	:	:
viduals and study- :	:	:	:
ing these?	:	:	:
f. Do I use suffi-	:	:	:
ciently varied de- :	:	:	:
vices to appeal to :	:	:	:
all my students?	:	:	:
g. Do I keep devices	:	:	:
properly subordin- :	:	:	:
ated to the problem :	:	:	:
in hand?	:	:	:

	Low	Ave.	High
IV. <u>Do I Make Preparation for</u>	:	:	:
<u>Demonstrations?</u>	:	:	:
1. Are the objectives clear and definite?	:	:	:
2. Are all details carefully prepared?	:	:	:
3. Are the required instructional materials carefully prepared?	:	:	:
4. Is there a single fundamental procedure presented?	:	:	:
5. Are demonstrations given at intervals as needs arise?	:	:	:
6. Do I present a demonstration skillfully?	:	:	:
7. Do I follow up my demonstrations with:	:	:	:
a. Job-analysis sheets?	:	:	:
b. Tests?	:	:	:
c. Laboratory work?	:	:	:
d. Discussion?	:	:	:
V. <u>Do I Evaluate My work?</u>	:	:	:
1. Have the students made standard progress for their grade as shown by the A. V. A. standards and other objective tests?	:	:	:
2. Have students developed initiative as shown by	:	:	:
a. Class discussion?	:	:	:

	Low	Ave.	High
b. Direction of their own work?	:	:	:
3. Have the students improved in self-reliance as shown by willingness to undertake new and difficult tasks?	:	:	:
4. Have the students developed respect for the personal and property rights of others?	:	:	:
5. Have the students developed an appreciation for the material things about them?	:	:	:

Summary.— This chapter may be summarized most satisfactorily by taking one by one the topics that have been discussed therein. A review of the chapter shows:

1. Rating scales may be divided into three groups, namely: administrative, supervisory, and self-rating. The supervisory and the self-rating scales are directly concerned with the improvement of teaching.

2. Thirty-three, or 60 per cent, of the institutions replying to the check list sent out at the beginning of this study use some form of rating scale for student teachers.

3. Thirty-five, or 63 per cent, of the supervisors base their final rating of the ability of student teachers partially or entirely upon their own judgment. Thirty-four per cent resort to other means of rating student teachers.

4. Twenty-three, or 44.2 per cent, of the supervisors base their rating of student teachers on a cooperative plan with other teachers in the department who offer professional training.

5. Forty-six, or 85.2 per cent, of the supervisors do not base their final rating of student teachers on a final semester test. Only eight, or 14.8 per cent, of the supervisors base their final rating of the student teacher on a final semester test.

6. A few variables have been found in the technique of rating student teachers, other than the ones mentioned in the check list.

7. Rating forms are used in more than one-half of the institutions replying to the check list.

8. There is a general lack of any accepted standard or criteria whereby student teachers may be judged and rated, or the efficiency of their teaching measured and evaluated.

9. The ultimate purpose of a self-rating scale is to stimulate the teacher to an intelligent self-criticism of his work.

10. A self-rating check list is presented for self-appraisal for the improvement of teaching in the field of industrial education.

CHAPTER V

SUMMARY AND CONCLUSIONS

This thesis considers the practices in supervising student teaching in industrial arts as found in institutions which offer courses in the subject.

The study involves three main divisions which are: (1) to determine the general practices of the programs in which student teaching is done, (2) to analyze significant variations and to show important central tendencies in the technique of supervision of student teachers, and (3) to present a means of evaluating student teaching.

The study includes approximately 40 per cent of the teacher training and other institutions in the United States offering industrial arts.

The data, which were obtained from check lists sent out by the writer at the beginning of this study, represent fifty-five institutions in twenty-five different states. The summary and conclusions are grouped under the following:

I. Training and experience of supervisors.— A wide variation is found in the training and experience of supervisors, as is shown in the following facts:

1. Only one supervisor has no degree whatsoever. Five, or 9.5 per cent, of the supervisors have earned the B. S. or the A. B. degree; forty-five, or 84.9 per cent, have earned the Master's degree; and two, or 3.8 per cent, have

earned the degree of Doctor of Philosophy.

2. The teaching experience of supervisors of student teachers varies from three to fifty years, with a median of 19.8 years.

3. The range of experience in supervising student teachers is from three to forty years, the median being 11.7 years.

II. Types of schools offering student teaching in industrial arts.— Of the fifty-five institutions cooperating in this study, 40 per cent have training schools; 32.2 per cent indicate that student teaching is done in the college industrial arts department; 25.5 per cent indicate that student teaching is done in the city school system; 1.1 per cent state that student teaching is done in the county schools, and 1.1 per cent say it is done in the township.

III. Method courses prerequisite to student teaching.— From the fifty-five replies received to the check list it is found that 16.9 per cent of the schools designate The Organization of Industrial Arts as a prerequisite to student teaching. Content and Methods of Industrial Arts is required by 12.3 per cent of the schools, while Techniques of Industrial Arts and Problems of Industrial Arts each are required by 9.2 per cent. It should be noted that nineteen courses are reported, but only four of them are required by as many as 47 per cent of the schools.

IV. Courses open, year offered, and levels upon which

student teaching is done.— Many different practices are found, as is shown in the following facts:

1. The courses Woodwork and Mechanical Drawing appear almost universally as practice fields. Three other courses, General Shop, General Metal Work, and Electricity, are included individually by more than half of the schools replying to the check list.

2. One college offers student teaching in the freshman year; nine colleges offer it in the sophomore year; twenty-one offer it in the junior year; twenty-two in the senior year; and one college offers student teaching in industrial arts to graduate students only.

3. In the lower grades more student teaching is done in the first course, while in the upper grades more is done in the second course. Of the fifty-five replies received, 66 per cent indicate that student teaching is done in the intermediate grades and in junior high school, while 68.6 per cent indicate it is done in junior-senior high school and senior high school.

V. Length of the course and length of the class period.— 1. The length of the course in which student teaching is done is from five to thirty-six weeks. The median is 11.7 weeks, and the mode is twelve weeks.

2. The length of the class period ranges from forty to 150 minutes. The median is 64.6 minutes.

VI. Amount of time spent by the student teacher in

class, in observation, and in actual classroom teaching.—1.

The number of minutes the student teacher meets the class varies from thirty to 150. The median is 63.2 minutes; the mode is sixty minutes.

2. The amount of time spent by the student teacher in observing class work ranges from zero to 100 per cent. The median is 33.3 per cent; the mode is 25 per cent.

3. The amount of time spent by the student teacher in actual classroom teaching is from zero to 100 per cent. The median is 76.5 per cent.

VII. Semester credit earned.— The semester credit earned in the student teaching course ranges from one to eight semester hours. The median is 3.4 hours. Twenty-nine, or 56.8 per cent, of the cases report a credit of three semester hours.

VIII. Practices of supervisors.— The practices of supervisors of student teaching in the field of industrial arts are many and varied, as the following points will show:

1. To the question whether observations are discussed in a general conference thirty-nine, or 76.4 per cent, of the supervisors answer in the affirmative.

2. Forty-eight, or 92.3 per cent, of the supervisors report that observations are discussed in individual conferences.

3. Twenty-six, or 47.2 per cent, of the supervisors indicate that teaching outlines are supplied to the student teachers.

4. Twenty-nine, or 55.7 per cent, of the supervisors mention teaching faults at the first conference with the student teacher.

5. Twenty-seven, or 30.9 per cent, of the supervisors mention all teaching criticisms in the first conference with the student teacher.

6. Fifty-three, or 96.3 per cent, of the supervisors mention a few teaching faults at each conference with the student teacher.

7. Fifty-three, or 96.3 per cent, of the supervisors mention good points as well as faulty ones in their conferences with student teachers.

8. Thirty-seven, or 72.5 per cent, of the supervisors hold conferences with student teachers following the lesson taught.

9. Twenty-four, or 55.8 per cent, of the supervisors report that a conference is held with student teachers only when there is a need.

10. Thirty-eight, or 70.5 per cent, of the supervisors hold weekly group conferences with the student teachers.

11. The per cent of time the supervisor is in the classroom with the student teacher at the beginning of his student teaching varies from zero to 100 per cent. The median is 92.1 per cent.

12. The per cent of time the supervisor is in the classroom with the student teacher in the latter part of his

student teaching varies from zero to 100 per cent. The median is 67.5 per cent.

13. The per cent of time per semester the supervisor remains in the class with the student teacher is from zero to 100 per cent. The median is 77.5 per cent.

IX. Requirements made of student teachers by supervisors.— The requirements that supervisors make of student teachers are almost as varied as the number of institutions reporting, as the following items will show:

1. Of the fifty-three institutions replying to the question, twenty-two, or 41.5 per cent, of the supervisors require that student teachers make a course of study.
2. Twenty-nine, or 54.7 per cent, of the supervisors have student teachers select their own teaching unit.
3. Forty-one, or 77.3 per cent, of the supervisors require student teachers to make their own teaching unit.
4. Forty-four, or 84.5 per cent, of the supervisors require that teaching units be based upon the course of study they are using.
5. Twenty-five, or 47.1 per cent, of the supervisors require student teachers to make a weekly lesson plan.
6. Twenty-one, or 42.8 per cent, of the supervisors require that student teachers follow a special form in making their lesson plans.
7. Forty-five, or 86.4 per cent, of the supervisors require that lesson plans be submitted for review and approval

before the student teacher is permitted to teach the lesson.

8. The number of days in advance that lesson plans must be submitted for the approval of the supervisor ranges from zero to seven.

9. Fifty-four, or 98.2 per cent, of the supervisors indicate that student teachers observe the supervisor at work.

10. Thirty-three, or 63.4 per cent, of the supervisors state that student teachers observe each other at work.

11. A self-criticism of the work of student teachers is requested by fifty, or 90.9 per cent, of the supervisors.

12. Twenty-eight, or 47.2 per cent, of the supervisors require that student teachers make reports of professional readings.

13. Thirty-seven, or 81.2 per cent, of the supervisors require that student teachers make requisitions, inventory sheets, and other reports.

14. Fifty-three, or 90.1 per cent, of the supervisors require that student teachers participate in the construction of materials and devices for shop and classroom use.

X. Responsibilities of student teachers.— The responsibilities of student teachers are shown in the items below:

1. Student teachers are given full responsibility in handling class problems in twenty-eight, or 52.8 per cent, of the institutions replying to the check list.

2. Thirty-seven, or 81.2 per cent, of the supervisors have student teachers refer class problems to the critic teacher.

3. Twenty-five, or 52 per cent, of the supervisors leave the selection of class projects to the student teacher.

4. Fifty, or 94.3 per cent, of the supervisors indicate that student teachers participate in the capacity of a regular classroom teacher.

5. Thirty-six, or 69.2 per cent, of the supervisors consider the ratings given to the pupils by student teachers as a basis for grading these pupils.

XI. Rating of student teachers.— The bases for evaluating the student teacher and his work lack uniformity, as the following items will show:

1. Thirty-three, or 60 per cent, of the institutions replying to the check list use some form of rating scale for student teachers.

2. Thirty-five, or 66 per cent, of the supervisors base their final rating of the ability of student teachers partially or entirely upon their own judgment.

3. Twenty-three, or 44.2 per cent, of the supervisors base their rating of student teachers on a cooperative plan with other teachers in the department.

4. Forty-six, or 85.2 per cent, of the supervisors do not base the final rating of student teachers on a final semester test.

5. Sample rating forms and rating scales were submitted by more than one-half of the institutions replying to the check list.

6. The ultimate purpose of a self-rating scale is

to stimulate the teacher to an intelligent self-criticism of his work.

7. A means of evaluating student teachers is presented in the check list. It includes the following items:

- a. How do I make assignments?
- b. Do I make preparation for the lesson?
- c. Is there evidence of a lesson plan?
- d. Do I make preparation for demonstrations?
- e. Do I evaluate my work?

BIBLIOGRAPHY

- ARMENTROUT, W. D., The Conduct of Student Teaching in State Teachers Colleges, (Colorado State Teachers College, Greeley, Colorado, 1927). p. 9.
- BAGLEY, W. C., Classroom Management (New York, the Macmillan Co., 1918), p. 275.
- CASS, E. M., An Investigation of Current Practices in Conducting Student Teaching in Certain Selected Centers for Training Vocational Industrial Teachers, unpublished Master of Arts thesis, University of Pittsburgh, Pittsburgh, Pa., 1928.
- DAY, FRANK D., Systems of Practice Teaching and Methods of Supervising Practice Teachers in Secondary Vocational Agriculture, unpublished Master of Arts thesis, University of Maryland, Baltimore, Md., 1926.
- RIGGS, HAZEL, A Plan for Supervision for Paducah Public Schools, unpublished Master of Arts thesis, Western Kentucky State Teachers College, Bowling Green, Ky., 1936. p. 73.

APPENDIX I

AN INQUIRY TO CHECK
PRESENT PRACTICE AND METHODS OF SUPERVISING
PRACTICE TEACHERS IN INDUSTRIAL ARTS

Name of teacher supplying information _____
 Name of school _____
 Town _____ State _____

GENERAL DIRECTIONS: This inquiry blank has been constructed so that many of your answers can be indicated by a check (✓) mark. Written answers have been called for when necessary.

1. Indicate with a check mark the types of shopwork in which practice teaching is done:
- | | |
|-------------------------------|-------------------------------------|
| a Architectural drawing | f Printing |
| b Electricity | g Woodwork |
| c General shop | h Others not mentioned above: |
| d Mechanical drawing | |
| e Metal work | |
2. Fill in proper information to left of statement. If only one course in practice teaching is offered then fill in the first column.

First Course in Practice Teaching	Second Course in Practice Teaching	• • •
		Units of credit given, (Sem., Quarterly or others)
		Year in which taken (Soph., Jr. etc.)
		Semester in which taken.
		Grade in which practice teaching is done (7th, 8th etc.)
		Number of minutes class meets daily.
		Single Period.
		Double Period.
		Number of minutes practice teacher meets class per day.
		Number of weeks practice teacher meets class.
		What per cent of time does practice teacher actually teach?
		What per cent of time does practice teacher observe classwork?
		What method courses in industrial arts are prerequisites to practice teaching?

- 3. How many years have you taught? _____
- 4. How many years have you supervised practice teachers? _____
- 5. Indicate with a check kind of academic degrees held:
 a A.B. ; b B.S. ; c M.A. ; d M.S. ; e Ph.D.

- 6. Indicate with a check mark place in which practice teaching is done:
 a Training school. d Not listed above:
 b College Ind. Arts Dept.
 c City school system.

7. Course of study and lesson plans:

- | | Yes | No | |
|---|-------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | | | Do you require your practice teachers to make a course of study? |
| b | | | Do you require practice teachers to make their own unit by which they teach the class? |
| c | | | Do you require practice teachers to make a weekly lesson plan? |
| d | | | Do you require practice teachers to follow a special form in making their own lesson plans? (If you have a form which is available, kindly inclose a copy with this inquiry.) |
| e | | | Do you permit practice teachers to select their own unit which they are to teach? |
| f | | | Are their units based on the course of study used by the critic teacher? |
| g | | | Are lesson plans required to be submitted for review and approval before the student teacher is permitted to teach the lesson? |
| h | | | How many days in advance are the lesson plans submitted for the critic's approval? (.....) |

8. Observations:

- | | Yes | No | |
|---|-------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | | | Do you have practice teachers observe the critic teacher teach? |
| b | | | Are these observations discussed in a general conference? |
| c | | | Are these observations discussed with practice teachers in individual conferences? |
| d | | | Do you give practice teachers an observation outline to guide them in their observation? (If you have a form which is available, kindly inclose a copy with this inquiry.) |
| e | | | Do you have practice teachers observe each other teach? |
| f | | | Approximately how long do practice teachers observe before actual teaching? (.....) |

9. Conferences:

- | | Yes | No | |
|---|-------|-------|--------------------------------------------------------------------------------|
| a | | | Do you mention teaching faults in the first conference with practice teachers? |
| b | | | In conferences with practice teachers do you point out all teaching faults? |
| c | | | Do you point out a few teaching faults at each meeting? |

- d In your criticisms do you mention good points as well as the faulty ones?
 e Do you request of your practice teachers self criticism of their teaching?
 f Do you have conferences with practice teachers following the lesson taught?
 g Do you have conferences only when there is a need?
 h Do you hold a weekly group conference with practice teachers?

i Percentage of time critic teacher is in classroom with practice teacher:

Per cent

- _____ At beginning of his practice teaching.
 _____ Latter part of his teaching.
 _____ Time spent per semester in class with practice teachers.

10. Responsibilities of practice teachers:

- | | Yes | No | |
|---|-------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | | | Do practice teachers have full responsibility in handling class problems? |
| b | | | Do the practice teachers refer the class problems to the critic teacher? |
| c | | | Do you leave the selection of projects to the practice teacher in charge? |
| d | | | Do you require the practice teachers to meet after school when it is necessary? |
| e | | | Do you have practice teachers participate in the capacity of a regular classroom teacher supervising classwork, administering tests, grading tests etc.? |
| f | | | Do you consider the ratings of practice teachers a basis for grading pupils? |
| g | | | Do you have practice teachers make reports of professional readings assigned by the critic teacher? |
| h | | | Do you require practice teachers to make requisitions, inventory sheets, and other reports? |
| i | | | Do you have practice teachers participate in the construction of materials and devices for shop and classroom use? |

11. Rating of practice teachers:

- | | Yes | No | |
|---|-------|-------|--------------------------------------------------------------------------------------------------------------------------------|
| a | | | Do you use a rating scale for the grading of the practice teachers?
(If you do, kindly inclose a copy.) |
| b | | | Do you base your final rating of your practice teachers on your own judgment? |
| c | | | Do you base your final rating on a cooperative plan with the other teachers who offer professional courses in industrial arts? |
| d | | | Do you give a final semester test and use it as a basis for determining final rating? |
| e | | | State any other method, not mentioned above, used in rating practice teachers: |

APPENDIX II

NAMES OF SUPERVISORS WHO FILLED OUT CHECK LIST

1. Armstrong, Fred O., Trenton, N. J.
2. Ashley, Lawrence F., Charleston, Ill.
3. Baker, Grace M., Greeley, Colo.
4. Bicknell, William C., Kearney, Neb.
5. Blide, Dan C., Minot, Minn.
6. Bryan, Forest K., Pittsburg, Kan.
7. Case, L. W., Duluth, Minn.
8. Coates, J. D., Richmond, Ky.
9. Coover, S. L., California, Pa.
10. Crawley, D. J., Bowling Green, Ohio
11. Dales, E. L., Cheney, Wash.
12. Damann, George, Kent, Ohio
13. Ericson, E. E., Santa Barbara, Calif.
14. Flanders, Earl S., Dover, N. H.
15. Floyd, Denton, Ada, Okla.
16. Franklin, M. E., Tahlequah, Okla.
17. Gerber, H. P., Aberdeen, S. Dak.
18. Gillis, John A., Canyon, Tex.
19. Grinstead, Noel B., Warrensburg, Mo.
20. Grove, J. G., Commerce, Tex.
21. Hastings, B. N., Nashville, Tenn.
22. Hatch, John H., Newark, N. J.
23. Hauler, Arthur, Oswego, N. Y.
24. Heckmann, M. W., Ellendale, N. Dak.
25. Henke, Frank X., Chicago, Ill.

26. Huntemer, E. J., Wayne, Neb.
27. Jackson, Clark, Emporia, Kan.
28. Larson, A. V., Peru, Neb.
29. Leib, Ben W., Kirksville, Mo.
30. Lindahl, L. G., Chadron, Neb.
31. London, H. H. Collegeboro, Ga.
32. Loveless, W. F., Hays, Kan.
33. McClintock, C. H., Bemidge, Minn.
34. McHenry, P. T., Conway, Ark.
35. Moe, O. Kay, Dillon, Mont.
36. Nelson, Maurice J., Mankota, Minn.
37. Oakland, Milo T., De Kalb, Ill.
38. Peterson, L. C., Carbondale, Ill.
39. Sherwood, M. J., Kalamazoo, Mich.
40. Silvius, G. H., Detroit, Mich.
41. Sink, O. E., Muncie, Ind.
42. Smith, L. T., Bowling Green, Ky.
43. Smith, Victor J., Alpine, Tex.
44. Sotzin, Heber A., San Jose, Calif.
45. Stombaugh, R. M. Normal, Ill.
46. Thompson, V. E., Stevens Point, Wis.
47. Tiffany, Marguerite B., Paterson, N. J.
48. Uhrich, Lester R., Millersville, Pa.
49. Valk, Donald N., Maryville, Mo.
50. Weismann, John J., St. Cloud, Minn.
51. Wetzsel, Wayne, Macomb, Ill.

52. Whitcomb, F. C., Oxford, Ohio
53. Willoughby, George A., Ypsilanti, Mich.
54. Wilson, W. C., Johnson City, Tenn.
55. Young, Ben W., Huntsville, Tex.