

ABSTRACT OF THESIS

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PRE-SERVICE INSTRUCTION TRAINING  
FOR TRADESMEN EMPLOYED  
TO TEACH EVENING TRADE EXTENSION CLASSES

Submitted by  
Forrest A. Holmes

In partial fulfillment of the requirements  
for the Degree of Master of Education  
Colorado State College  
of  
Agriculture and Mechanic Arts  
Fort Collins, Colorado

August, 1944

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## ABSTRACT OF THESIS

This problem is limited to a study of the plans now in use for giving initial instructor training to tradesmen who have not previously been teachers. Because of the regular employment at which they work throughout the day, and the fact that they do not receive remuneration for the time they devote to initial training, it is impractical for them to be assembled for a regular pre-training course. The pre-training period discussed in this study refers to the one and one-half hours which the tradesmen can devote along with their night school teaching at the beginning of their first teaching experience.

Legislation which controls the operation of evening trade extension classes makes it mandatory that skilled mechanics be employed to do the teaching. Consequently, in every vocational school in the United States competent journeymen are employed to do this work. It has been found that these journeymen have not developed an acceptable degree of competence in teaching, and as a result have difficulty in conducting evening trade extension classes. Therefore, the problem of training journeymen in the art of teaching

is universal. This problem also confronts the authorities of the Beloit Vocational and Adult School, Beloit, Wisconsin, the place with which this study is primarily concerned.

The investigation received its direction by an analysis of the following problem:

What pre-service instruction training should be given to tradesmen employed to teach evening trade extension classes?

- A. How much time should be devoted to pre-service instruction training of evening school instructors?
- B. What content should be included?
- C. What teacher-training methods should be used?
- D. How much pay should prospective instructors receive while taking this training?
- E. What constitutes a feasible plan?

To determine the plans now in use for giving this pre-training, it was necessary first to review the pertinent literature to the problem, and secondly to consult a committee of leaders in the vocational field. The following committee directed the procedure to be used in solving the problem: Mr. M. Reed Bass, Principal of the Rankin Trade School, St. Louis, Missouri; Mr. George Rodenheiser, Assistant Principal of the Rankin Trade School, St. Louis, Missouri; Dr. C. A. Prosser, Director of Dunwoody Institute,

Minneapolis, Minnesota; Dr. Roy A. Hinderman, Director of Vocational Education, in the Denver, Colorado, Public Schools.

In order to establish the validity of the sources of information, the foregoing committee carefully selected three groups of schools, as listed in Chapter III, which included the 47 vocational schools in Wisconsin, the 15 leading private vocational schools, and the 15 leading public vocational schools in the United States. The method of gathering the information was by personal interviews with the directors or coordinators of the Wisconsin vocational schools, using the questionnaire as a recording device, and by questionnaire from the public and private vocational schools.

The committee recommended the following plan for making the questionnaire reliable as a data-gathering device:

1. Analyze the problem for needed questions and items.
2. Have the questionnaire checked by 15 trade and industrial men, including supervisors and directors, on the campus of the Colorado State College.
3. Revise forms in the light of these suggestions.
4. Try out questionnaire with five trade and industrial men to check for discrepancies.
5. Revise form in the light of these try outs.



6. Prepare tabulation sheets to agree with the questionnaire.

During the school year 1943-44, the writer made contacts with the directors and coordinators of the Wisconsin vocational schools, by interviews consummated at state conventions or by calls at the individual schools when the distances were not prohibitive. Because of absences at the meetings or at the schools, only 33 actual interviews were completed.

During the same year questionnaires were mailed to the 15 leading public vocational schools and the 15 leading private vocational schools throughout the United States. Nine of the 30 schools responded.

The data were recorded on the tabulation sheets and analyzed in order of importance as they related to the subordinate questions as follows:

- |  |  |
|--|--|
| A. How much time should be devoted to pre-service instructor training of evening school instructors? | The data were summarized on items 41 and 42 on the tabulation sheets for <u>time</u> from each return.       |
| B. What content should be included?  | The data were summarized on items 2 to 16 inclusive on tabulation sheet for <u>content</u> from each return. |

- C. What teacher-training methods should be used? The data were summarized on items 1, 17 to 36 inclusive, 38 and 39, and 43 and 44, on tabulation sheet for method from each return.
- D. How much pay should prospective instructors receive while taking the training? The data were summarized on items 37 and 40 on tabulation sheet for remuneration from each return.

An analysis and consideration of the findings revealed a plan of pre-service teacher-training which had three parts. The first part was the procedure to be used in scheduling teacher-training. The second part was the procedure to be used by the teacher-trainer in conducting the training. The third part was the content to be included in the course. A statement of the plan follows:

- A. Procedure to schedule teacher-training advantageously.
1. The pre-training of journeymen is definitely needed and must be carried on in order to maintain effective instruction.
  2. It is recommended that training schedules be made in terms of the conditions such as availability of the tradesmen and the

availability of the person who is to give the training.

3. The optimum length of one teacher-training meeting is 90 minutes. The study showed that the minimum length of a meeting was 40 minutes, and the maximum was  $2\frac{1}{2}$  hours. This latter range could be used if certain situations demanded it.

4. In order to provide adequately for the training, the course should be 43 hours in length. If, however, a person taking the training learns more rapidly, a fewer number of hours may be adequate. If it should be necessary to give him more instruction, the time could be extended to the maximum of 72 hours.

B. Procedure to be used by the teacher-trainer in conducting the teacher-training.

1. The place to do the training would be the office, the conference room, the shop classroom, or some suitable place as determined by the subject the instructor is going to teach.

2. The instruction would be conducted by the supervisor or teacher-trainer by conferences.

3. The emphasis during the training would be placed upon making the training applicable to fit a specific course.
4. Class attendance was the criterion most frequently used for judging the proficiency of an evening school instructor. If the attendance were constant or increasing the instructor was considered capable.
5. It is not the practice to pay the journey-men while they are taking the training.
6. A high salary schedule should be maintained to make the teaching job attractive to the tradesmen. The average rate was \$2.00 an hour.

C. The content to be included in the course.

Unit No. I - Orientation - 3 hours

No. of Sessions		No. of Hours
1	Channels of authority in the school	$1\frac{1}{2}$
$\frac{1}{2}$	Forms and reports	$\frac{1}{2}$
<u>2</u>		<u>3</u>

Unit No. II - Analysis -  $13\frac{1}{2}$  hours

6	The analysis of trades and jobs	9
$\frac{3}{2}$	The selection of course content	$4\frac{1}{2}$
<u>9</u>		<u><math>13\frac{1}{2}</math></u>

Unit No. III - Organization of instructional material -  $13\frac{1}{2}$  hours

3	The study of vocational part time philosophy	$4\frac{1}{2}$
3	The formulation of a course of study	$4\frac{1}{2}$
$\frac{3}{2}$	The use of job sheets and instructional material	$4\frac{1}{2}$
<u>9</u>		<u><math>13\frac{1}{2}</math></u>

No. of  
Sessions

No. of  
Hours

Unit No. IV - Methods of teaching - 13½ hours

3	The study of learning difficulties	4½
4	The methods of instruction	6
1	The explanation of the use of the demonstration	1½
1	The explanation of the use of the illustration	1
<u>9</u>		<u>13</u>

The specific answers to subordinate question A, "How much time should be devoted to pre-service instruction training of evening school instructors?" may be found in the recommended plan A, questions 3 and 4.

The specific answers to subordinate question B, "What content should be included?" may be found in the recommended plan C, units I, II, III, and IV.

The specific answers to subordinate question C, "What teacher-training methods should be used?" may be found in the recommended plan B, questions 1 to 4 inclusive.

The specific answers to subordinate question D, "How much pay should prospective instructors receive while taking this training?" may be found in recommended plan B, questions 5 and 6.

The specific answers to subordinate question E, "What constitutes a feasible plan?" may be found in recommended plans A, B, and C.

The suggested course procedure and content, which have resulted from a review of pertinent literature and questionnaire findings, will greatly assist the authorities of the Beloit Vocational and Adult School,

Beloit, Wisconsin, in carrying out the teacher-training program.

The following additional problems which have been noted in this investigation are suggested for further study:

1. How may assistance be given to the teacher-trainer so that he will do a more effective job and also set a good example of teaching for the journeymen to follow?
2. What in-service teacher-training should be given to journeymen teachers after they have received this pre-service training?
3. What criteria should be used to determine the value of a satisfactory teaching job?

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OF  
AGRICULTURE AND MECHANIC ARTS

August 7, 1944

I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY  
SUPERVISION BY Forrest A. Holmes  
ENTITLED Pre-service instruction training for trades-  
men employed to teach evening trade extension classes.  
BE ACCEPTED AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE  
DEGREE OF MASTER OF Education  
MAJORING IN Trades and Industries  
CREDITS 5

*R. A. Linderman*  
In Charge of Thesis

APPROVED *Russell K. Britton*  
Head of Department

Examination Satisfactory

Committee on Final Examination  
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*J. O. Marshall*      *Russell K. Britton*

*V. E. Newson*  
Dean of the Graduate School

Permission to publish this thesis or any part of it  
must be obtained from the Dean of the Graduate School.

## ACKNOWLEDGMENTS

A study of this type can be accomplished only through the cooperation of many persons. The writer wishes first to acknowledge his indebtedness to Dr. R. A. Hinderman, Director of Educational Research in Industrial Education at the Colorado State College, for his generous assistance in this study. Without his help the completion of this investigation would not have been possible.

Acknowledgment is also made to Professor R. K. Britton, Teacher Trainer in Trade and Industrial Education at the Colorado State College, for his assistance and timely suggestions, and to Mrs. Willard Eddy, of the same institution, for her help in English and organization.

Valuable aid was contributed by the directors and coordinators of all of the 42 schools reporting data, and by Mr. R. L. Welch, Assistant State Director of Vocational and Adult Education in Wisconsin, in securing interviews and answers from the coordinators and directors.

Further acknowledgment is made to the writer's wife for her enthusiasm and assistance during the compilation and gathering of data.

TWENTY-ONE

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## Chapter I

### INTRODUCTION

It has long been an established fact that teacher-training is necessary to teach a subject effectively (18). Those who have taken college courses in education have received training in subject matter, methods, and procedures (16). This study, however, deals with the training of tradesmen (26) who are to teach in the evening school.

Mays (35) made the following statement:

To command the respect of adult industrial workers, and to hold their interest, the industrial teacher of evening classes must possess unquestionable mastery of his field. To this end long experience in the industrial occupation he represents is absolutely necessary. To secure men of this type requires careful planning. These men can be called in at intervals for short unit, intensive teacher training courses, thus insuring not only expert trade training, but high grade teaching skill (35:165).

In years past, and even now in some localities, a tradesman would be hired to teach a class in the evening school of the community (13). He was fortified with only his knowledge of the trade he was to teach (64). His classroom was pointed out to him and he was told to "go to it," without even the blessing of the director of the school. This was unfortunate for more reasons than one. The teaching was poor, the students learned less

than they should have, and the instructor himself was discouraged beyond hope.

Because of the foregoing, the more aggressive schools have been awakened to the fact that something should be done to train the tradesmen into effective teaching methods and procedures (55).

Prosser (48) substantiates the pre-training as follows:

It is one thing to know a trade or occupation, but quite another thing to teach it to others. After the best possible man has been secured, he must next be trained in the process of his new job as an instructor in his subject. To this job he brings from his previous experience as a workman certain indispensable assets in trade skill and knowledge; a certain ability to "put over" to others what he knows; and a certain ability to analyze that trade. But he must now take over a new trade, acquire ability in a new line. He may or may not have received some previous teacher training. The demands of this job are direct and immediate, therefore the training must also be direct and immediate (48:175).

Certain difficulties have to be surmounted before the pre-instructor training begins. The tradesman who is to teach in the evening school has had five or more years of experience in working at the trade (58). His chief occupation is the trade at which he works regularly throughout the day. Because of his superior knowledge of the trade as it is currently carried on, he is usually employed (35:165) for two hours a night, two to five nights a week, to instruct others working at the trade (31). The persons whom he teaches are less experienced and are taking the exten-

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sion training to upgrade themselves in their work. It has been found that this journeyman teacher has not developed an acceptable degree of competence in teaching, and as a result he has difficulty in conducting evening trade extension classes (46).

In this regard, Struck (57) has said:

It has been shown conclusively that American evening school students are not interested in traditional academic courses taught in the conventional way. Nor are they concerned about industrial arts and vocational courses that are unrelated to their personal requirements (57:502).

Every evening school official will profit greatly by thinking about the school as a business enterprise, for that is precisely what it should be (56). Business should be conducted in the best possible manner to make it successful. This same philosophy applies to the business of running a school (20). With this thought in mind, the school administrator should do some teacher-training for these journeymen who are to teach in the evening school.

Since teacher-training is so important and its difficulties so generally recognized, the assumption is made that a careful study of content and methods now being used for teacher-training of journeymen would result in valuable findings on the best current practices and procedures (61).

Brandon (7) pointed out that pre-training is in its infancy and that a completely efficient program with a definite objective has not yet been organized.



The Training of Teachers for Trade and Industrial Education bulletin (63) lists some of the training features in programs as they are now being conducted, as follows:

In considering the scope of a thorough-going program for training trade and industrial teachers, it may be of interest to list courses most commonly offered.

1. Job operation, trade, or occupational analysis.
2. The organization of subject matter from a teaching standpoint or from the angle of learning difficulties.
3. Methods of teaching, both specifically and generally.
4. The use of auxiliary teaching material such as job or operation sheets.
5. Vocational guidance. (63:19)

The foregoing information showed what is being done, but this study is limited to what should be done to give initial instructor training to tradesmen who have not taught previously. It will be necessary to determine the most feasible content to be included in such a course, the most effective methods to be used in the pre-instruction training, and the most advantageous length of time (66) to be devoted to such a plan.

The journeyman teacher is a busy man. After working all day in his regular employment he is eager for a rest until evening school begins. Under these conditions, teacher-training holds little lure for him, but a slight remuneration would be an incentive for him to attend the teacher-training class.

Therefore, a fourth item should be

incorporated into the plans which will constitute a teacher-training program for trade and industrial evening school teachers - remuneration during the training.

The 47 vocational evening schools in Wisconsin conduct evening trade extension classes. This problem of giving teacher-training to tradesmen who are to teach their subject in the evening schools is a vital one. It is especially important to the evening school of Beloit, Wisconsin, the city with which this study is particularly concerned. In Beloit, as well as in the rest of the Wisconsin vocational evening schools, the teachers employed to do the teaching are tradesmen during the day and are not college trained (60) instructors or full time vocational teachers.

The problem of this study is, "What pre-service instruction training should be given to tradesmen employed to teach evening trade extension classes?" The study is limited to securing information on evening trade extension teacher-training that can be gathered from the vocational schools in Wisconsin and other leading private and public vocational schools. The schools used for getting the data for this study were determined by a committee of advisors.

The solution to this problem will be sought by obtaining answers to the following questions:

- A. How much time should be devoted to pre-service instructor training of evening

- school instructors?
- B. What content should be included?
  - C. What teacher-training methods should be used?
  - D. How much pay should prospective instructors receive while taking the training?
  - E. What constitutes a feasible plan?

An investigation of the research literature, reported in the following chapter, reveals information that is pertinent to the problems presented above.

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## Chapter II

## REVIEW OF LITERATURE

Legislation controlling the operation of evening trade extension classes makes it mandatory that skilled tradesmen be employed to do the teaching. In as much as it has been found that these journeymen have not developed an acceptable degree of competence in teaching, it is an accepted fact that these tradesmen need some help that can be rendered by teacher training.

In reviewing the literature, no research study has been made dealing directly with the study of teacher training for trade and industrial evening school teachers. However, as the problem is partly one of methods and plans, findings of studies which provide a valuable background for this study are presented in the following pages. X

The research findings which bear on question A: "How much time should be devoted to pre-service instructor training of evening school instructors?" follow:

According to the bulletin of Vocational Teacher Training (66), Whitney, director of vocational teacher-training, University of Pittsburgh, made a study which was contained in a report made by the Vocational

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Department of Pittsburgh University on teacher-training to the committee on trade and industrial teacher-training of the American Vocational Association in 1934. Information contained in this report was received by letters from the area east of the Mississippi River as follows:

The short intensive conference is an excellent device for training vocational teachers in service. The comments from letters received on the value of this device indicated a concensus that short conferences, ranging from two hours to several days, are helpful in getting regional instructors together, in assisting beginning teachers, and perhaps even more helpful in working out and recasting courses of study. (6:3)

This method of short conferences could easily be adapted to the pre-training of trade extension teachers inasmuch as the hour immediately preceding or the hour following the start of classes would be about the only time available for pre-training. It would undoubtedly have to be revamped to suit the needs and limited time which can be devoted to this training by the trade extension teacher.

There are other time factors to be considered in the teacher-training of tradesmen in the evening school. The War Production Training bulletin (22:15), which was prepared under the auspices of Hawkins, is based upon contact with 12 regional conferences of war production supervisors. Averill, the special agent, reported suggestions for giving pre-service training. The suggestions relating to the time that should be

devoted to the teacher training of tradesmen to be teachers follow:

1. Six to 12 hours of orientation to the job of teaching.
2. Approximately one month of apprenticeship as an assistant to a competent instructor under the direct and close supervision of a local supervisor.
3. Employment as an instructor under continued but less frequent supervision.

The foregoing reviews point to the following three time elements to be incorporated in the pre-training program of the new instructor.

1. One hour immediately preceding the start of the evening classes.
2. Six to 12 hours of orientation to the job of teaching before being placed on the job.
3. Placement under a competent instructor and to act as an understudy to the instructor.

The Training of Teachers (63), a bulletin which was prepared under the auspices of Cushman, is based upon contact with trade and industrial education. Teacher-trainers in 25 states which led in teacher training in 1930, were contacted. Cushman reported as follows:

Not only has the experience demonstrated that teachers for this type of industrial education must be drawn from industry, but if the teacher training program is to attempt to serve the needs adequately the teacher trainer must be prepared to give assistance to the mechanic drawn from industry after he is chosen and placed on the job to teach. In some cases, it has been found possible to give a few hours preliminary assistance to night-school teachers prior to their starting work.

In other instances, no attempt is made to meet



with the mechanic before he begins his teaching, but an extension teacher trainer arranges his schedule in such a manner as to meet with teachers for half an hour in the evening before the night school classes begin. In the few cases where such a plan has been tried, it has demonstrated its great value in ways which can be directly measured. In a number of states as yet, no attempt is made by the teacher training program to serve the needs of the evening-school teacher, and the entire brunt falls upon the local or state supervisor for such incidental assistance as he may be able to render.

The purpose of the teacher-training fund under the vocational educational act is to promote the establishment of courses and classes having as a distinct aim the preparation and improvement of teachers of vocational subjects for service under the vocational act. In general, the purpose is to provide professional training for the teaching to persons already prepared as efficient workers in the vocation in which they are to teach. (63:13)

Although a teacher from industry may know his trade perfectly, it is imperative that he also know how to analyze his trade, make a course of study from that analysis, and understand methods of presentation and testing. The meeting with teachers from industry for half-hour to hour periods each evening prior to beginning class could easily be adapted to a pre-training program. The local supervisor or teacher-trainer could give much advice to the trade extension teacher in subject matter and methods relating to his classes. The tradesman-teacher would realize his need for pre-training after his first meeting with the supervisor and would welcome his help.

The research findings which bear on question B, "What content should be included?" follow:

Barr (4) in Characteristic Differences of Good and Poor Teachers compiled data collected in 1929 from 47 teachers of history, civics, and geography in Wisconsin. Each teacher was visited during teaching hours, and good and poor items were noted in chart form. Barr listed facts which are vital to the selection of good teachers. They are:

1. Definite teacher aims
2. Attitude of teacher
3. Skill in teaching technique
4. Methods of instruction
5. Discipline
6. Selection and organization of subject matter
7. Educational degree and teaching experience
8. Methods of motivation of work
9. Provision for individual differences
10. Illustrative material
11. Posture
12. Knowledge of subject matter
13. Energy and vitality
14. Sincerity
15. Voice (4:3,117)

The above 15 points include specific items of content that Barr found necessary for the preparation of teachers. The specific items of content from the foregoing list are:

4. Methods of instruction

5. Discipline
6. Organization of subject matter
12. Knowledge of subject matter

Bowler (6), in his study of vocational coordination in Rhineland, Wisconsin, noted a few items concerning teacher improvement. He sent out check lists and questionnaires to the 21 vocational schools having coordinators in 1937. These questionnaires were answered by the directors, comparisons were made, and the following items were noted concerning teacher training.

1. Formulate and stimulate advisory committees.
2. Keep the school abreast of labor laws and permits.
3. Assist circuit teachers.
4. Acquaint new teachers with duties and routine.
5. Aid evening school trade-extension workers.
6. Issue teachers information.
7. Make surveys.
8. Analyze or assist others to analyze jobs, trades, content, related information, or other effective material. (6:45)

Bowler found only two items in his teacher training list which will apply to course content for pre-induction training. The specific items are:

4. Acquaint new teachers with duties and routine.
8. Analyze or assist others to analyze jobs, trades, content, related information, or other effective material.



Welch (65) analyzed the teacher-training of circuit teachers in Wisconsin in 1937. To secure the information, a form, developed by Prosser and used by the Minneapolis Civic and Commerce Association, was used. This form was sent to 13 experienced circuit teachers and all vocational school directors in the state. From data received, Welch says:

The aim of constructing a course of training for circuit teachers is to bring them in contact with facts and information which should not only enrich their teaching, but teach them the necessary procedures in public relations insofar as it may affect vocational education in general, as well as in their own field.

Job specifications, required courses of study, and other rulings were taken into account in the writing of the course.

At a meeting with the state teacher-trainers new teachers are to receive preliminary training before going into active service. However, they draw their salaries during the training period. This course, therefore, is designed to give the new teacher considerable work to do. He will be tested on all points and then assigned to understudy a circuit teacher on the job for a short time.

In the "General Specifications" a course called The Part Time School and Its Problems is listed. It is required that this course be taken by all vocational school teachers, as it is basic in its matters of philosophy, legislation, administration, coordination, and supervision of part-time education in Wisconsin. Methods of Teaching Trade and Industrial Subjects is another course listed in the specifications. (65:39)

Welch also presents the following course of training for newly employed circuit teachers:

- I. Philosophy of the part-time school movement
- II. Types of part-time education

- III. Laws and regulations relating to part-time education
  - IV. Organization and administration of the part-time school
  - V. Coordination and supervision
  - VI. Methods of instruction
  - VII. Itinerant instruction
  - VIII. Elements upon which industrial efficiency depends
  - IX. Elements upon which teaching efficiency depends
  - X. Relationships of psychology to trade and industrial teaching
  - XI. Teaching the content selected
  - XII. Presentation through assignment
  - XIII. Presentation through demonstration, illustration, and experiment
  - XIV. Presentation through lecture or class talk by the teacher
  - XV. Presentation through visual devices
  - XVI. Management-routine-maintenance
  - XVII. Individual students achievement
  - XVIII. General information
- Extension Training for Teachers in Service
- I. Legislation and rulings
  - II. Channels of authority in manners
  - III. Professional services
  - IV. Forms and reports
  - V. Geography of the state (65:42-54)

The foregoing review may be used as a guide to the specific content that the teacher-trainer should

use in giving pre-service instructor training. The items of content that relate to the preliminary training of evening school instructors as determined by Welch are:

- VI. Methods of instruction
- IX. Elements upon which teaching efficiency depends
- X. Relationships of psychology to trade and industrial teaching
- XII. Presentation through assignment
- XIII. Presentation through demonstration, illustration, and experiment
- XIV. Presentation through lecture or class talks by the instructor
- XV. Presentation through visual devices
- XVI. Management, routine, maintenance (65:45-51)

Research findings which bear on question C, "What teacher training methods should be used?" follow:

Norton (40) in Education for Work, reported to the regents of the University of the State of New York on adequate teacher-training programs. These facts were collected in 1937 from information sheets supplied by all leading principals and supervisors and local and state educational officials in the state of New York. He made the following statement:

Once the state has established adequate minimum standards for approval of training programs, it should assist these institutions in every way possible by preparing useful material dealing with such matters as the problems being met by teachers, by distributing the results of special research, and by maintaining close contact with the



institution.

Four recommendations concerning a teacher training program in the field of vocational industrial education are made. (a) The state should establish a teacher-training institution. (b) A summer training program should be established. (c) The state should recognize the need for re-training vocational teachers. (d) The state department should consider seriously the transfer of industrial teacher training programs to the teacher Education and Certification Division.

All teachers and administrators of vocational courses should be required to do professional work. The work need not be taken in formal classes. It may be either course work, travel, employment, research, or any other type of activity appropriate to the individual's capacity to teach his subject effectively. (40:245-49)

Norton further states that advisory committees should be appointed so that the local situations may benefit by the experiences of the men in the field.

Such boards can help school administrators on such matters as the introduction, elimination, or major revisions of courses, the planning of buildings, or the purchasing of appropriate equipment. The character of the work being done in such schools, the nature of the equipment, and the timelessness of the program, demonstrated conclusively the effectiveness of the advisory board as a means of providing community cooperation.

One provision should be the requirement of apprenticeship teacher-training as a definite part of the program. Another stipulation should be that these approved institutions, if they accept the responsibility of training teachers, should assume the obligation of maintaining a regular field contact with all graduates for one year after graduation in order to be certain that the teacher is becoming adjusted to his teaching. (40:245)

Also contained in this report were three principal methods which can be incorporated into a teacher training program. They are as follows:



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1. Conferences, with the prospective instructor, carried on by the advisory committee, can help the school administrator on such items as content of courses, planning of equipment purchases, and so on.
2. Individual and group instruction given by the supervisor or teacher trainer to induct the tradesmen into the field of teaching.
3. Formalized courses taught by staff members in officially designated teacher training institutions to induct the tradesmen into the field of teaching. (40:244)

The findings in this report can be used as a basis for teacher training procedure. An advisory committee could be appointed to aid the extension teacher in selecting the necessary material to be taught. The teacher-trainer or supervisor could then help the extension teacher with problems of presentation, allotment of time, and any other factors which might arise.

The foregoing review of pertinent research has supplied partial answers as to subordinate question A, "How much time should be devoted to pre-service instructor training of evening school instructors?", B, "What content should be included?", and C, "What teacher training methods should be used?" This evidence can be used as a basis of comparison with data secured in the study. It can also be used as an aid in formulating final recommendations for a feasible plan. No research evidence was found on subordinate question D, "How much pay should prospective instructors receive while taking the training?" and on question E, "What constitutes a feasible plan?"

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Complete answers to the questions in the problem were obtained according to the methods described in Chapter III.

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RAN CONTENT

### Chapter III

#### MATERIALS AND METHODS

The problem of teacher training for trade and industrial evening school teachers is difficult and has been shown to have a number of ramifications. This is true because tradesmen who teach in the evening school are regularly employed at their work during the day and have a minimum of time to devote to teacher training. A further difficulty is the one of choosing content and methods which will be highly functional for the teacher training course. In many cases the tradesmen who are most wanted as instructors are most reluctant to serve because they can earn much more money by working at their trades during the time when they would be teaching in the evening school. This raises the problem of paying the instructors for the time they spend taking teacher training.

Information that might lead to answers to the foregoing problems was sought in reports of studies and presented in Chapter II. Since only partial answers were secured by this means, this investigation has been conducted on the training of evening trade extension instructors.

This chapter will be divided into three parts.



1. A description of the sources from which data are to be obtained.
2. Discussion of the methods to be used in securing the data.
3. A statement of the procedures to be followed in applying the methods to the sources and in tabulating and analyzing the results.

This problem was presented to the following group of leaders in the field of vocational education for consideration and advice: Dr. M. Reed Bass, Principal of the Rankin Trade School, St. Louis, Missouri; Mr. George Rodenheiser, Assistant Principal of the Rankin Trade School, St. Louis, Missouri; Dr. C. A. Prosser, Director of Dunwoody Institute, Minneapolis, Minnesota; Dr. Roy A. Hinderman, Director of Vocational Education, in the Denver, Colorado, Public Schools. These authorities, after careful deliberation, concluded that the study was of real importance, and that worth-while evidence could be obtained from the leading public and private vocational schools in the United States and from the vocational schools in the state of Wisconsin.

In order to establish the validity of the three sources of information, the foregoing committee of advisers carefully selected the following schools to be included in this study.



Sources of Materials

The above mentioned group listed the three sources as follows:

Source I

Private Vocational Schools

1. Dunwoody Institute, Minneapolis, Minnesota
2. Rankin Trade School, St. Louis, Missouri
3. Williamson Free Trade School, Germantown, Pennsylvania
4. Rochester Athenaeum Mechanics Institute, Rochester, New York
5. Franklin Institute, Boston, Massachusetts
6. Franklin Institute, Philadelphia, Pennsylvania
7. Wilmerding School of Trades, San Francisco, California
8. Delgado School of Trades, New Orleans, Louisiana
9. Lewis Institute, Chicago, Illinois
10. Merrill Vocational School, Oakland, California
11. Armour Institute of Technology, Chicago, Illinois
12. Memphis Technical High School, Memphis, Tennessee
13. Berry Vocational School, Macon, Georgia
14. Hershey Vocational School, Hershey, Pennsylvania
15. Chicago Technical Institute, Chicago, Illinois

Source II

Public Vocational Schools

1. Hadley Vocational School, St. Louis, Missouri
2. Miller Vocational High School, Minneapolis, Minnesota
3. Burgard Vocational High School, Buffalo, New York
4. Frank Wiggins School, Los Angeles, California
5. Lane Technical High School, Chicago, Illinois
6. Washburn Trade School, Chicago, Illinois
7. Ahrens Trade School, Louisville, Kentucky
8. Camden Vocational School, Camden, New Jersey
9. Seneca Vocational High School, Buffalo, New York
10. Boys Vocational School, Baltimore, Maryland
11. Edison Vocational School, Seattle, Washington
12. Denver Opportunity School, Denver, Colorado
13. Manual and Vocational High School, Kansas City, Missouri
14. Automotive Vocational High School, Cincinnati, Ohio
15. The Vocational School, Hartford, Connecticut

## Source III

The 47 Vocational Schools in Wisconsin

1.	Antigo	Vocational School	Antigo, Wisconsin
2.	Appleton	" "	Appleton, "
3.	Ashland	" "	Ashland, "
4.	Beaver Dam	" "	Beaver Dam, "
5.	Beloit	" "	Beloit, "
6.	Chippewa Falls	" "	Chippewa Falls, "
7.	Cudahy	" "	Cudahy, "
8.	Eau Claire	" "	Eau Claire, "
9.	Fond du Lac	" "	Fond du Lac, "
10.	Fort Atkinson	" "	Fort Atkinson, "
11.	Green Bay	" "	Green Bay, "
12.	Janesville	" "	Janesville, "
13.	Kaukauna	" "	Kaukauna, "
14.	Kenosha	" "	Kenosha, "
15.	Kimberly	" "	Kimberly, "
16.	LaCrosse	" "	LaCrosse, "
17.	Madison	" "	Madison, "
18.	Manitowoc	" "	Manitowoc, "
19.	Marinette	" "	Marinette, "
20.	Marshfield	" "	Marshfield, "
21.	Menasha	" "	Menasha, "
22.	Menomonie	" "	Menomonie, "
23.	Merrill	" "	Merrill, "
24.	Milwaukee	" "	Milwaukee, "
25.	Niagara	" "	Niagara, "
26.	Oshkosh	" "	Oshkosh, "
27.	Portage	" "	Portage, "
28.	Port Washington	" "	Port Washington, "
29.	Racine	" "	Racine, "
30.	Rhineland	" "	Rhineland, "
31.	Rice Lake	" "	Rice Lake, "
32.	Sheboygan	" "	Sheboygan, "
33.	Shorewood	" "	Shorewood, "
34.	South Milwaukee	" "	South Milwaukee, "
35.	Stevens Point	" "	Stevens Point, "
36.	Stoughton	" "	Stoughton, "
37.	Sturgeon Bay	" "	Sturgeon Bay, "
38.	Superior	" "	Superior, "
39.	Tomahawk	" "	Tomahawk, "
40.	Two Rivers	" "	Two Rivers, "
41.	Watertown	" "	Watertown, "
42.	Waukesha	" "	Waukesha, "
43.	Wausau	" "	Wausau, "
44.	Wauwatosa	" "	Wauwatosa, "
45.	West Allis	" "	West Allis, "
46.	West Bend	" "	West Bend, "
47.	Wisconsin Rapids	" "	Wisconsin Rapids, "

It was the concensus of opinion of this advisory group that the evidence from the first two sources should be gathered by means of a questionnaire and that data from the third source should be gathered by means of personal interviews, using the interview form as a guide and recording device. These personal interviews were to be held with the directors or coordinators of the schools. The writer was introduced to these directors and coordinators by a letter (Appendix 6) from Mr. Robert L. Weloh, Assistant State Director of Vocational and Adult Education in Wisconsin.

This group further recommended and approved the following plan and procedure which would make the questionnaire reliable as a data gathering device:

1. Analyze the problem for needed questions and items.
2. Have the questionnaire checked by 15 trade and industrial men, including supervisors and directors, on the campus of the Colorado State College.
3. Revise forms in the light of these suggestions.
4. Try out questionnaire with five trade and industrial men to check for further faults.
5. Revise form in the light of these try outs.
6. Prepare tabulation sheets to agree with the questionnaire.



The foregoing procedure has been followed and has resulted in the questionnaire (Appendix 1) and tabulation sheets (Appendix 2, 3, 4, and 5).

### Procedure

Koos, in his study of The Questionnaire In Education (28), found that a questionnaire response of 20 per cent was reliable when the questionnaires were sent out in small numbers.

This writer's study dealt with small groups of questionnaires, ranging from 15 for the private vocational schools, 15 for the public vocational schools, and 47 for the Wisconsin vocational schools.

#### Step I

During the school year 1943-44, the writer made contacts with either the directors or coordinators of the 47 vocational schools in Wisconsin, listed on page of this study.

#### Step II

Letters were mailed to the 15 leading private and the 15 leading public vocational schools throughout the United States, as listed on page 27. Each letter contained:

1. A letter of introduction from Mr. Robert L. Welch, Assistant State Director of Vocational and Adult Education in Wisconsin (Appendix 7).
2. A copy of the questionnaire (Appendix 1).



## 3. A franked return addressed envelope.

## Step III

When the returns were received from the three sources, the results were recorded on the tabulation sheets (Appendix 2, 3, 4, and 5).

## Step IV

The data on the tabulation sheets were analyzed in order of importance, as they related to the subordinate questions, as follows:

- |  |  |
|--|--|
| A. How much time should be devoted to pre-service instructor training of evening school instructors? | The data were summarized on items 41 and 42 on the tabulation sheets for <u>time</u> from each return.                                     |
| B. What content should be included?  | The data were summarized on items 2 to 16 inclusive on tabulation sheet for <u>content</u> from each return.                               |
| C. What teacher-training methods should be used?   | The data were summarized on items 1, 17 to 36 inclusive, 38 and 39, and 43 and 44, on tabulation sheet for <u>method</u> from each return. |
| D. How much pay should prospective instructors   | The data were summarized on items 37 and 40 on   |

receive while taking the tabulation sheet for  
training? remuneration from each  
return.

The procedure described above was followed in  
gathering, tabulating, and analyzing the results. The  
findings are presented in Chapter IV.

## Chapter IV

## FINDINGS

The solution to the problem of training trade and industrial evening school teachers in how to teach was based upon research studies and questionnaire findings. These data are reported in this chapter.

The numbers of respondents to the questionnaires are given below in Table 1.

Table 1.--NUMBER OF QUESTIONNAIRE RESPONDENTS

Names of schools	Number	Acknowledged No question- naire returned	Number of returns	Per cent of returns
Leading private vocational schools in the United States	15	10	3	20
Leading public vocational schools in the United States	15	6	6	40
The vocational schools in Wisconsin	47		33	68
Total	77		42	54

Thirteen of the private vocational schools and 12 of the public vocational schools acknowledged the letters but did not return the questionnaires.



The findings relating to subordinate question A, "How much time should be devoted to pre-service instruction training of evening school instructors?" were secured through questions presented in Table 2.

It may be noted that there is a range in the total amount of time devoted to teacher training from 15 hours to 72 hours, the average being 43, although the answers from the respondents showed that two-thirds of the schools offered this training. The length of the periods ranged from 40 minutes to two and one-half hours, or an average of one and one-half hours per meeting.

It may be noted that the answers of the respondents suggested the scheduling of classes in Table 3 as follows: 38 per cent, before class in the evening; 24 per cent, just after class in the evening, and 22 per cent, during the summer. Only 16 per cent suggested this pre-training on Saturdays.

The respondents listed the personnel who should give the training as follows: 57 per cent, directors; 42 per cent, coordinators; 41 per cent, supervisors; 22 per cent, state teacher trainers; and seven per cent, school superintendents.

The findings relating to the subordinate question B, "What content should be included?" are tabulated in Table 4, items 2 to 16 inclusive, all of which were headed by the lead question: "Which of the



Table 2.--TIME DEVOTED TO PRE-SERVICE TRAINING

Question	Frequency and percent															
	Wisconsin				Public				Private				Total			
	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	
1	2				3				4				5			
41. Do you give pre-training? -----	20	13	61	39	6	0	100	0	2	1	67	33	28	14	67	33
Minimum number of hours given to pre-training -----	15 hours															
Maximum number of hours given to pre-training -----	72 hours															
Average number of hours given to pre-training -----	43 hours															
42. If you have pre-training what is the length of time per meeting? -																
Minimum length -----	40 minutes															
Maximum length -----	150 minutes															
Average length -----	90 minutes															

F--Frequency      Y--Yes  
P--Per cent      N--No

Table 3.--SCHEDULES OF CLASSES AND TRAINERS

Question	Frequency and per cent															
	Wisconsin				Public				Private				Total			
	F		P		F		P		F		P		F		P	
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
1	2				3				4				5			
23. By having him come to school on Saturdays -----	6	27	18	82	1	5	16	84	0	3	0	100	7	35	16	84
24. Before class in the evening -----	12	21	36	64	2	4	34	66	2	1	66	34	16	26	38	62
25. Just after class in the evening -----	7	26	22	78	2	4	34	66	1	2	34	66	10	32	24	76
26. During the summer -----	5	28	15	85	2	4	34	66	2	1	66	34	9	33	22	78
32. Is pre-training conducted by the state teacher trainer -----	5	28	15	85	3	3	50	50	1	2	34	66	9	33	22	78
33. By the supervisor -----	13	20	39	61	3	3	50	50	1	2	34	66	17	25	41	59
34. By the coordinator -----	16	17	48	52	2	4	34	66	0	3	0	100	18	24	42	58
35. By the superintendent -----	3	30	9	91	0	6	0	100	0	3	0	100	3	39	7	93
36. By the director -----	21	12	64	36	2	4	34	66	1	2	34	66	24	18	57	43
38. Give others -----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

F--Frequency  
P--Per cent  
Y--Yes  
N--No

Table 4.--CONTENT INCORPORATED IN THE TEACHER TRAINING PLANS OF THIS STUDY

Question	Frequency and per cent																
	Wisconsin				Public				Private				Total				
	F		P		F		P		F		P		F		P		
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	
1	2				3				4				5				
Which of the following are included in your course of study?																	
2. Learning difficulties -----	23	10	69	31	3	3	50	50	1	2	34	66	27	15	65	35	
3. Vocational part-time philosophy	23	10	69	31	3	3	50	50	0	3	0	100	26	16	62	38	
4. Analysis of trades and jobs ---	27	6	82	18	3	3	50	50	2	1	66	34	32	10	76	24	
5. Formulation of course of study	22	11	67	33	3	3	50	50	2	1	66	34	27	15	65	35	
6. Psychology -----	15	18	45	55	2	4	34	66	1	2	34	66	18	24	42	58	
7. Selection of course content ---	24	9	73	27	3	3	50	50	1	2	34	66	28	14	66	34	
8. Explanation of demonstration --	25	8	75	25	2	4	34	66	2	1	66	34	29	13	69	31	
9. Illustration -----	23	10	69	31	2	4	34	66	1	2	34	66	26	16	62	38	
10. Experiment -----	16	17	48	52	2	4	34	66	1	2	34	66	19	13	45	55	
11. Channels of authority in the school -----	19	14	57	43	4	2	66	34	1	2	34	66	24	18	58	42	
12. Professional courtesy -----	18	15	55	45	3	3	50	50	1	2	34	66	22	20	52	48	
13. Forms and reports -----	27	6	82	18	4	2	66	34	2	1	66	34	33	9	78	22	



Table 4.--CONTENT INCORPORATED IN THE TEACHER TRAINING PLANS OF THIS STUDY--Continued

Question	Frequency and per cent															
	Wisconsin				Public				Private				Total			
	F		P		F		P		F		P		F		P	
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
1	2				3				4				5			
14. Is the teacher given any job sheets or instructive material	27	6	82	18	5	1	84	16	2	1	66	34	34	8	81	19
15. Is guidance and enrollment-boosting stressed -----	21	12	64	36	1	5	16	84	1	2	34	66	23	19	55	45
16. Give others -----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

F--Frequency  
P--Per cent  
Y--Yes  
N--No



following are included in your course of study?"

Item 14, "Is the teacher given any job sheets or instructive material?" received affirmative answers as follows: 82 per cent for the Wisconsin vocational schools, 84 per cent for the public vocational schools, and 66 per cent for the leading private vocational schools in the United States.

The item of Experiment as rated by the three sources received an affirmative reply of 48 per cent from the Wisconsin vocational schools and 34 per cent from each of the other two sources.

Learning difficulties received the following ratings: 69 per cent from the Wisconsin vocational schools, 50 per cent from the leading public vocational schools, and 34 per cent from the leading private vocational schools in the United States.

The three sources ranked the item Trade and Job Analysis 82 per cent, 50 per cent, and 66 per cent respectively.

Answers to the item Course Content were received from 73 per cent of the Wisconsin vocational schools and 50 per cent of the leading public vocational schools in the United States, and 34 per cent of the leading private vocational schools in the United States.

The results relative to subordinate question C, "What teacher training methods should be used?" were given in questions 1, 17 to 22, 27 to 31, 39, 43, 44,

and 45 listed in Table 5.

Two-thirds of the respondents incorporated Methods of Presentation in their teacher-training as is shown in Column 5, Table 5.

It will be noted in question 20, Column 5, that 65 per cent of the schools used individual pre-training from the supervisor. Of the training given, 57 per cent related directly to a specific course.

The average number of trade teachers for all the 42 schools reporting was 18. Likewise, the average number of evening school trade extension classes was 18.

Findings presented in Table 6 concern subordinate question D, "How much pay should the prospective instructors receive while taking this training?"

Seventy-two per cent of the respondents gave negative answers concerning pay during the training period. This was true of all three sources with negative answers of 73 per cent, 66 per cent, and 66 per cent respectively.

It will be noted that affirmative answers to item 37, "Does this man receive salary during the pre-training period?" were given as follows: Wisconsin vocational schools, 27 per cent; public vocational schools, 34 per cent; and private vocational schools, 34 per cent.

On question 40, "Does your night school salary rate make the position attractive to the tradesmen?"

Table 5.--METHODS USED IN TEACHER TRAINING

Question	Frequency and per cent															
	Wisconsin				Public				Private				Total			
	F		P		F		P		F		P		F		P	
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
1	2				3				4				5			
1. In the pre-training do you incorporate methods of presentation	24	9	73	27	3	3	50	50	1	2	34	66	28	14	66	34
17. Do you merely place the man on the job and tell him to "go to it"	0	33	0	100	1	5	16	84	0	3	0	100	1	41	3	97
18. By making him outline the course and then say, "Go to it" -----	8	25	25	75	1	5	16	84	2	1	66	34	11	31	26	74
19. By letting him understudy an experienced teacher -----	14	19	43	57	2	4	34	66	2	1	66	34	18	24	43	57
20. By having individual pre-training from the supervisor -----	22	11	66	34	3	3	50	50	2	1	66	34	27	15	65	35
21. By giving him a pre-training course	10	23	31	69	3	3	50	50	2	1	66	34	15	27	35	65
22. By pre-training directly applicable to his specific course -----	18	15	55	45	3	3	50	50	3	0	100	0	24	18	57	43
27. Do you hold it in the class room	12	21	36	64	3	3	50	50	1	2	34	66	16	26	38	62
28. In the assembly -----	2	31	6	94	1	5	16	84	0	3	0	100	3	39	7	93
29. In the conference room -----	16	17	48	52	2	4	34	66	1	2	34	66	19	23	45	55
30. In the office -----	20	13	61	39	2	4	34	66	2	1	66	34	24	18	57	43



Table 5.--METHODS USED IN TEACHER TRAINING--Continued

Question	Frequency and per cent															
	Wisconsin				Public				Private				Total			
	F		P		F		P		F		P		F		P	
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
1	2				3				4				5			
31. No particular place -----	6	27	18	82	1	5	16	84	0	3	0	100	7	35	16	84
39. What check is used to determine whether or not the teacher's position should be permanent ---																
a. Enrollment falling off --	23	10	69	31	1	5	16	84	0	3	0	100	24	18	57	43
b. Leaving the shop in disorder -----	13	20	39	61	1	5	16	84	0	3	0	100	14	28	34	66
c. Not taking time to requisition material ---	9	24	27	73	1	5	16	84	0	3	0	100	10	32	24	76
43. How many trade teachers do you have in the evening school -----	(Depending on size. Range is from 2-60, average is 18)															
44. How many evening school trade extension classes do you have -----	(2-60, average 18)															
45. Give additional suggestions which you think might be of value-----	(Program must be flexible to fit all circumstances)															

F--Frequency  
P--Per cent  
Y--Yes  
N--No

Table 6.--HOW MUCH PAY SHOULD PROSPECTIVE INSTRUCTORS RECEIVE WHILE TAKING THE TRAINING?

Question	Frequency and per cent															
	Wisconsin				Public				Private				Total			
	F		P		F		P		F		P		F		P	
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
1	2				3				4				5			
37. Does this man receive salary during pre-training period -----	9	24	27	73	2	4	34	66	1	2	34	66	12	30	28	72
40. Does your night school salary rate make the position attractive to the tradesman -----	18	15	55	45	3	3	50	50	3	0	100	0	24	18	57	43

F--Frequency  
P--Per cent  
Y--Yes  
N--No

11 affirmative answers received were 55 per cent from the 47 vocational schools in Wisconsin, 50 per cent from the 15 leading public vocational schools, and 100 per cent from the 15 leading private vocational schools in the United States.

A discussion of remuneration for teacher-training for tradesmen will be given in Chapter V, using as a basis the tabulations just described.



## Chapter V

### DISCUSSION

The problem of pre-service training for trade and industrial evening school teachers (60) is not one of pre-training in its primary meaning. The term implies that tradesmen to be trained are brought together singly or in groups before beginning their teaching. At this time they would be trained, theoretically, in all important phases of teaching technique. After the completion of this training period, they would be qualified to carry on class work adequately. This is the manner in which the circuit teachers are trained in Wisconsin (66). In this study, as was brought out in the findings, the journeymen do not receive any remuneration during this teacher-training period. This bears out the fact that the tradesmen will not devote any appreciable length of time to pre-training, but will immediately begin their teaching so that they will be paid for the time they are putting in. In reality they will be prorating their combined time of pre-training and teaching with the pay only from the actual teaching time. They will be receiving remuneration for two hours of teaching, but will have put in three and one-half hours of time. As is shown

in Table 6, the questionnaire respondents stated that it was not necessary to pay the journeymen during the pre-training period, but 57 per cent stated that a night school salary rate should be maintained so as to make the teaching job attractive. The pre-training in this study refers to the one and one-half hours each evening, before class begins, or one of the other allotted training times, continuing until the total of 43 hours of pre-training is reached.

The Federal Bulletin states:

Not only has experience demonstrated that teachers must be drawn from industry, but if the teacher training program is to attempt to serve the needs adequately, the teacher trainer must be prepared to give assistance to the mechanic drawn from industry after he is chosen and placed on the job to teach. In some cases, it has been found possible to give a few hours preliminary assistance to night school teachers prior to their starting in the work (60:13).

Teaching is looked upon as a profession or trade in its own right. It is an art to be able to "put over" to others what the teacher himself already knows. The tradesmen who are to teach in the evening school already know their subject, but in addition they need to know how to teach. This teacher-training must be accomplished in a relatively short period of time so that the tradesmen can proceed with the job for which they were hired. Mays (34) and Prosser (47) stated that this teacher-training must be direct and immediate. Subordinate question A asks, "How much

time should be devoted to pre-service instructor training of evening school instructors?"

Two questions, as brought out in the findings in this study, have bearing on the time element devoted to the teacher-training of these tradesmen.

Question 41, Table 2, dealt with the minimum and maximum number of teacher-training meetings. This was answered in two ways: Some respondents gave the minimum and maximum number of hours from 15 to 72, and some answered with a "yes" or "no" as to whether they had these meetings at all. Of the respondents, 61 per cent of the Wisconsin vocational schools, 100 per cent of the public vocational schools, 67 per cent of the private vocational schools, and 67 per cent of all schools gave this training.

In the review of research Hawkins (22), Whitney (34), and Cushman (60) reported that short units of instruction immediately preceding the evening classes were advisable. The length of training should be from one-half to one hour. No conclusions were drawn as to the total length of time necessary to make this training adequate.

In question 1, Table 2, 74 per cent of the respondents answered that an average of one and one-half hours was a suitable length of time for the meetings.

It will be noted that two-thirds of the



schools reporting gave these tradesmen teacher-training.

This training was dealt with in the following manner:

1. An average number of meetings to train the individual adequately.
2. The length of each separate meeting to constitute one training session.
3. A specified time to give the training to suit all situations.
4. The official who is to give the training.

A man who works until six o'clock in the evening might not be able to take teacher-training prior to the start of the evening class. This is clear because in Beloit, Wisconsin, the evening classes start at 7:30 p.m. The journeyman gets through with his regular employment at 6:00 p.m., must eat his evening meal, and arrive at school in time to begin the evening class. The school might even be some distance from the man's home. In cases like this, there might be many times when the tradesman could not be scheduled to take his teacher-training before class starts. The journeyman may also be teaching as many as five nights a week in addition to working at his regular employment six or possibly seven days a week. Additional time to be devoted to the teacher-training plus his regular employment and his night school teaching would be a very severe routine. The employer for whom he works regularly throughout the day is perhaps willing to have

him teach in the evening school, but would object to his taking additional training of one and one-half hours each evening if it "cut down" on his efficiency during the day.

Thirty-eight per cent of the instruction was given in the evening just before class started, 24 per cent of the instruction was given in the evening just after class, 22 per cent of the instruction was given during the summer months, and 16 per cent of the instruction was given on Saturdays. Because of scheduling difficulties, the training was given at these different times.

In addition to the foregoing, a teacher-trainer must be chosen for the tradesmen. This is a problem because all people who are capable of giving teacher-training are busy. The state teacher-trainer in Wisconsin is especially busy because he has 46 other vocational schools to supervise in addition to Beloit. Perhaps he could not arrive on the scene at the same time as the tradesmen. Oftentimes the local supervisor is too busy with his regular duties. The coordinator, superintendent, and the director are also busy with other regular duties. A large school would probably have a full time man employed for this purpose, and this whole problem then becomes one of scheduling.

Questionnaire responses showed that teacher-

training was given as follows: 57 per cent by directors, 42 per cent by coordinators, 41 per cent by supervisors, 22 per cent by the state teacher-trainers, and seven per cent by superintendents.

In the review of literature it was found that Norton (40) suggested conferences with prospective instructors or groups of instructors. In this way the supervisor or teacher-trainer could give formulated courses of study.

It seems from the evidence of this study that the most desirable time to schedule teacher-training meetings is just prior to the beginning of the journeyman's class. The second most desirable time is just after class in the evening, the third most desirable would be during the summer months, and the fourth, on Saturdays.

Considering the review of research and the results of the questionnaire the following recommendations are made:

1. Pre-training of journeymen must be carried on in order to maintain effective instruction.
2. Training schedules should be made in terms of the conditions such as availability of the tradesman, and the availability of the person who is to give the training.
3. The optimum length of one teacher-training meeting is 90 minutes. However, since the



study showed that the minimum length of a meeting was 40 minutes, and the maximum was two and one-half hours, this latter range could be used if certain situations regulate it.

4. The course should be 43 hours in length. If, however, a person taking the training learns more rapidly, fewer hours may be adequate. If it should be necessary to give him more instruction, the time could be extended to the maximum of 72 hours.

If pre-instruction teacher-training is to be given to journeymen, as just pointed out, it is necessary that a study of content to be incorporated in the training be made. Because so little time is available, 43 hours, it becomes necessary to include only the most essential course content.

Subordinate question B asks: "What content should be included?" This was answered by questions 2 to 16, inclusive, in the questionnaire. The respondents answered the content questions in the light of what they were doing in the teacher-training program (Table 4, page 37). Sixty-five per cent of all the respondents incorporated a Study of Learning Difficulties in their course content. Sixty-two per cent realized the importance of Vocational Part Time Philosophy and included it in their content. Trades

and Jobs Analysis was given by 76 per cent of the 42 who responded. The Formulation of a Course of Study and Selection of Course Content brought affirmative answers of 65 per cent and 66 per cent respectively. Sixty-nine per cent used the Explanation of the Demonstration and 62 per cent the Explanation of the Illustration. Channels of Authority in the School and Professional Courtesy were incorporated in the content by 58 per cent and 52 per cent respectively. Forms and report procedures were used by 78 per cent of the schools which reported. The Use of Job Sheets and Instructive Material were included by 81 per cent of the respondents to show the tradesmen how to apply this to their own teaching. Guidance and Enrollment-Boosting was stressed by 55 per cent of those answering. Psychology and the use of the Experiment were used by only 42 per cent and 45 per cent of the respondents. Question 16 asked for additional suggestions, but none were given.

The circuit teacher program in Wisconsin, as explained by Welch (65), incorporates many of the content items just described. Each fall before school opens, two weeks are given over to the teacher-training of these instructors. During this time these teachers receive instruction in the following: methods of instruction, elements upon which teacher efficiency depends, relationships of psychology to trade and

industrial teaching, presentation through assignment, presentation through demonstration, presentation through visual aids, management, routine, and maintenance.

The review of research showed further bearing on the question of content. Barr (4) and Bowler (6) gave pointed evidence as to what should be incorporated. Barr (4) listed: methods of instruction, organization of subject matter, and knowledge of subject matter.

Bowler (6) also listed teachers' duties and routine as well as job analysis and related information as being necessary to good teacher-training.

When the respondents to the questionnaire gave affirmative answers of 50 per cent or better that an item of content was used in the pre-training, and when it was supported by the review of research, the item was considered valid and incorporated in this recommended course.

The following items of content are therefore recommended to be included in the teacher training course as it relates to a feasible plan.

1. The study of learning difficulties
  2. The study of vocational part-time philosophy
  3. The analysis of trades and jobs
  4. The formulation of a course of study
  5. The methods of instruction
  6. The selection of course content
- +



7. The channels of authority in the school
8. The explanation of professional courtesy
9. The use of forms and reports
10. The use of job sheets and instructive material
11. The necessity for guidance and enrollment-boosting
12. The use of the illustration
13. The explanation of the demonstration

These items comprise the content of the teacher-training course. Barr (4) in his listings mentioned knowledge of subject matter. This item can at once be taken from consideration because the tradesmen are chosen because of their knowledge of the subject. Their new job is the one of teaching the subject they already know.

In arranging the course content in keeping with the findings of this study the orientation process must first be considered. Two-thirds of the respondents used an induction period prior to the training. Fifty-seven per cent gave the training as directly applicable to the specific trade in which the journeymen were employed to teach. This is in contrast to the written-in statement of one respondent who suggested that the training should be flexible to fit all situations. This process is one which any teacher or person must follow before beginning a job. The person to be oriented must know the channels of authority in

the school. He must know the school officials, professional courtesy, where to park his automobile, where the wash room is located, and so on. He must further learn how to make out forms and reports, record marks and personal data, and finally he must be convinced of the need for giving careful guidance and the necessity for enrollment boosting. In the light of the foregoing, it seems advisable to allocate the first three hours of the 43 for pre-training to the orientation process. This leaves 40 hours to be given to the subject of actually pre-training the tradesmen in the teaching process.

The problem of how to carry on the teacher-training (Table 5) must next be considered before conclusions may be drawn in the light of the teaching content. The respondents showed that the place of training must be ascertained. This inquiry was prompted by subordinate question C, "What teacher-training methods should be used?"

From the foregoing responses, it is noted that the best place to do the training is in the office, conference room, and classroom. The idea seems to be that the training should be given in the most suitable place that is available for that purpose.

Methods of instruction as taught in colleges are rather long and drawn out. As stated in the discussion of subordinate question B, the teacher-trainer

should employ the best methods of instruction to train the journeymen rapidly and effectively. The procedure to use in this training would be that of having the supervisor or other designated teacher-trainer meet with the prospective instructor or instructors. In this way the training could be effected. This, as Prosser (48) suggested, would be part of the direct and immediate training of the journeymen.

The questionnaire study also concerned methods in use by the 42 schools which reported. The schools had numbers of trade teachers ranging from one or two to 60, with an average of 18, as shown in question 43, Table 3. The number of evening school trade extension classes given by this group included a range of from two to 97, with an average of 18 also.

Question 45, Table 5, asked for additional suggestions which might be of value to be used by the teacher-trainer. The only suggestion offered was by one respondent, which was that the methods of instruction should be such that they possessed flexibility to fit all situations.

Sixty-six per cent of the respondents said that specific methods were used in presenting their subject matter in the pre-training. It was not done in a "hit or miss" fashion. This was exemplified in the next question where 97 per cent stated that they did not put a man on the job and then tell him to "go



to it." Twenty-six per cent had the new man outline his course and then told him to "go to it." Letting the new teacher understudy an experienced teacher, before teaching himself, was used by 43 per cent of the respondents. After the pre-training this could be done to give the new teacher additional help. Pre-training was carried on by the supervisor in 65 per cent of the cases.

The place of instruction varied. Thirty-eight per cent held it in the shop room; seven per cent, in the assembly room; 45 per cent, in the conference room; and 57 per cent, in the office. However, this was not rigidly followed and many of the respondents did the training in one or more of the aforementioned locations. Sixteen per cent stated that various places were used to give the training.

Question 39, Table 5, asked, "What check is used to determine whether or not a teacher's position should be permanent?" During the teacher-training period and the subsequent time that the tradesman teaches, it was found necessary to check for efficiency. Leaving the shop in disorder and not taking time to requisition materials received low percentage answers of 34 per cent and 24 per cent respectively.

As described in A Unit of Instruction (24:82) pre-training is divided into three sections: the analysis, organization of instructional material, and

methods of teaching. Each of these sections is assigned 30 hours for its completion.

Since equal emphasis is given to each of the above items, the 43 hours in this study may also be divided equally as follows:

Unit No. I - Orientation - 3 hours

No. of Sessions		No. of Hours
1	Channels of authority in the school	1½
<u>1</u>	Forms and reports	<u>1½</u>
2		3

Unit No. II - Analysis - 13½ hours

6	The analysis of trades and jobs	9
<u>3</u>	The selection of course content	<u>4½</u>
9		13½

Unit No. III - Organization of instructional material - 13½ hours

3	The study of vocational part time philosophy	4½
3	The formulation of a course of study	4½
<u>3</u>	The use of job sheets and instructional material	<u>4½</u>
9		13½

Unit No. IV - Methods of teaching - 13½ hours

3	The study of learning difficulties	4½
4	The methods of instruction	6
1	The explanation of the use of the demonstration	1½
<u>1</u>	The explanation of the use of the illustration	<u>1½</u>
9		13½

The problem of this study, "What pre-service instruction training should be given to tradesmen employed to teach evening trade extension classes?" was discussed in the light of the four subordinate questions given above. The final subordinate question to be considered is: "What constitutes a feasible plan?"

A careful analysis and consideration of the findings reveal that this plan of pre-service teacher-training has three important parts. The first one is the procedure to be used in scheduling teacher-training; the second one is the procedure to be used by the teacher-trainer to functionalize the teacher-training, and the third one is the content to be included in the course. Therefore, the following feasible plan can be made:

- A. Suggestions to be used for scheduling teacher-training advantageously:
  1. The pre-training of journeymen is definitely needed and must be carried on in order to maintain effective instruction.
  2. Training schedules should be made in terms of the conditions such as availability of the tradesmen and the availability of the person who is to give the training.
  3. The optimum of one teacher training meeting is 90 minutes. The study showed that the minimum length of a meeting was 40 minutes, and the maximum was two and one-half hours. This latter range could be used if certain situations regulate it.
  4. In order to provide adequately for the training, the course should be 43 hours in length. If, however, a person taking the



training learns more rapidly, a fewer number of hours may be adequate. If it should be necessary to give him more instruction, the time could be extended to the maximum of 72 hours.

B. Suggestions to be used by the teacher-trainer to functionalize his program:

1. The place to do the training would be the office, the conference room, the classroom, or some suitable place to fit the local situation.
2. The training should be conducted in conferences.
3. The emphasis during the conference training should be placed upon making the training applicable to fit a specific course.
4. Class attendance was the criterion most frequently used for judging the proficiency of an evening school instructor. If the attendance were constant or increasing the instructor was considered capable.
5. It is not necessary to pay the journeymen while they are taking the training although it might be beneficial.
6. A night school salary schedule should be maintained to make the teaching job

Voucher Bond

attractive to the tradesmen.

C. The content to be included in the course:

Unit No. I - Orientation - 3 hours

No. of Sessions		No. of Hours
1	Channels of authority in the school	1½
<u>1</u>	Forms and reports	<u>1½</u>
2		3

Unit No. II - Analysis - 13½ hours

6	The analysis of trades and jobs	9
<u>3</u>	The selection of course content	<u>4½</u>
9		13½

Unit No. III - Organization of instructional material - 13½ hours

3	The study of vocational part time philosophy	4½
3	The formulation of a course of study	4½
<u>3</u>	The use of job sheets and instructional material	<u>4½</u>
9		13½

Unit No. IV - Methods of teaching - 13½ hours

3	The study of learning difficulties	4½
4	The methods of instruction	6
1	The explanation of the use of the demonstration	1½
<u>1</u>	The explanation of the use of the illustration	<u>1½</u>
9		13½

The specific answers to subordinate question A, "How much time should be devoted to pre-service instruction training of evening school instructors?" may be found in the recommended plan A, questions 3 and 4.

The specific answers to subordinate question B, "What content should be included?" may be found in the recommended plan C, units I, II, III, and IV.

The specific answers to subordinate question C, "What teacher-training methods should be used?" may

be found in the recommended plan B, questions 1 to 4 inclusive.

The specific answers to subordinate question D, "How much pay should prospective instructors receive while taking this training?" may be found in recommended plan B, questions 5 and 6.

The specific answers to subordinate question E, "What constitutes a feasible plan?" may be found in recommended plans A, B, and C.

The foregoing subordinate questions have been ascertained in the light of subordinate question E, "What constitutes a feasible plan?" and answer the problem in this study: "What pre-service instruction training should be given to tradesmen employed to teach evening trade extension classes?"

#### Limitations

In order that a true picture of the study may be brought out, it is well to consider its shortcomings.

During the school year 1943-44, the writer made contacts with the directors and coordinators of the Wisconsin Vocational Schools. These contacts were made at state conventions or meetings, or by calls at the individual schools. At many of the state meetings and conventions some of the directors or coordinators were absent. Also some of the individual calls were neglected where distance was too great or when gasoline



rationing made it impossible to consummate them. Because of this, only 33 of the total 47 schools contributed to this study.

The schools contacted ranged in size from those having one or two night school teachers to those having as many as 97. This accounts for the large amount, 57 per cent, of teacher-training being conducted by the school directors. Some of the schools, instead of having only one person do the pre-training, had different members of the staff perform this duty. For example, some of the schools had the director, the coordinator, the supervisor, and the state teacher-trainer do the training. The larger schools, of course, had one person designated for this task. In another instance the training was given in several different places in the school. For example, it was given in the office, the conference room, the classroom and in the assembly. Sixteen per cent said they did not have any particular place for the training. All of the foregoing shows that a variety of answers was received, depending upon the size of the school. The large systems designate a certain person for the duty and a definite place in which to carry it on.

As Koos (28) suggested, it would be best to make the investigation of all of the 77 schools by means of personal interviews, as was done with the schools in Wisconsin. This was impossible because of

the time involved, the expense it would require, and the great amount of travel necessary.

The suggested course procedure and content, which have resulted from a review of pertinent literature and questionnaire findings, will greatly assist the authorities of the Beloit Vocational and Adult School, Beloit, Wisconsin, in carrying out the teacher-training program.

The following additional problems which have been noted in this investigation are suggested for further study:

1. How may assistance be given to the teacher-trainer so that he will do a more effective job and also set a good example of teaching for the journeymen to follow?
2. What in-service teacher-training should be given to journeymen teachers after they have received this pre-service training?
3. What criteria should be used to determine the value of a satisfactory teaching job?

## Chapter VI

### SUMMARY

This problem is limited to a study of the plans now in use for giving initial instructor training to tradesmen who have not previously been teachers. Because of the regular employment at which they work throughout the day, and the fact that they do not receive remuneration for the time they devote to initial training, it is impractical for them to be assembled for a regular pre-training course. The pre-training period discussed in this study refers to the one and one-half hours which the tradesmen can devote along with their night school teaching at the beginning of their first teaching experience.

Legislation which controls the operation of evening trade extension classes makes it mandatory that skilled mechanics be employed to do the teaching. Consequently, in every vocational school in the United States competent journeymen are employed to do this work. It has been found that these journeymen have not developed an acceptable degree of competence in teaching, and as a result have difficulty in conducting evening trade extension classes. Therefore, the problem of training journeymen in the art of teaching



is universal. This problem also confronts the authorities of the Beloit Vocational and Adult School, Beloit, Wisconsin, the place with which this study is primarily concerned.

The investigation received its direction by an analysis of the following problem:

What pre-service instruction training should be given to tradesmen employed to teach evening trade extension classes?

- A. How much time should be devoted to pre-service instruction training of evening school instructors?
- B. What content should be included?
- C. What teacher-training methods should be used?
- D. How much pay should prospective instructors receive while taking this training?
- E. What constitutes a feasible plan?

To determine the plans now in use for giving this pre-training, it was necessary first to review the pertinent literature to the problem, and secondly to consult a committee of leaders in the vocational field. The following committee directed the procedure to be used in solving the problem: Mr. M. Reed Bass, Principal of the Rankin Trade School, St. Louis, Missouri; Mr. George Rodenheiser, Assistant Principal of the Rankin Trade School, St. Louis, Missouri; Dr. C. A. Prosser, Director of Dunwoody Institute,

Minneapolis, Minnesota; Dr. Roy A. Hinderman, Director of Vocational Education, in the Denver, Colorado, Public Schools.

In order to establish the validity of the sources of information, the foregoing committee carefully selected three groups of schools, as listed in Chapter III, which included the 47 vocational schools in Wisconsin, the 15 leading private vocational schools, and the 15 leading public vocational schools in the United States. The method of gathering the information was by personal interviews with the directors or coordinators of the Wisconsin vocational schools, using the questionnaire as a recording device, and by questionnaire from the public and private vocational schools.

The committee recommended the following plan for making the questionnaire reliable as a data-gathering device:

1. Analyze the problem for needed questions and items.
2. Have the questionnaire checked by 15 trade and industrial men, including supervisors and directors, on the campus of the Colorado State College.
3. Revise forms in the light of these suggestions.
4. Try out questionnaire with five trade and industrial men to check for discrepancies.
5. Revise form in the light of these try outs.

6. Prepare tabulation sheets to agree with the questionnaire.

During the school year 1943-44, the writer made contacts with the directors and coordinators of the Wisconsin vocational schools, by interviews consummated at state conventions or by calls at the individual schools when the distances were not prohibitive. Because of absences at the meetings or at the schools, only 33 actual interviews were completed.

During the same year questionnaires were mailed to the 15 leading public vocational schools and the 15 leading private vocational schools throughout the United States. Nine of the 30 schools responded.

The data were recorded on the tabulation sheets and analyzed in order of importance as they related to the subordinate questions as follows:

- |   |   |
|---|---|
| <p>A. How much time should be devoted to pre-service instructor training of evening school instructors?</p> | <p>The data were summarized on items 41 and 42 on the tabulation sheets for <u>time</u> from each return.</p>       |
| <p>B. What content should be included?</p>  | <p>The data were summarized on items 2 to 16 inclusive on tabulation sheet for <u>content</u> from each return.</p> |



- G. What teacher-training methods should be used? The data were summarized on items 1, 17 to 36 inclusive, 38 and 39, and 43 and 44, on tabulation sheet for method from each return.
- D. How much pay should prospective instructors receive while taking the training? The data were summarized on items 37 and 40 on tabulation sheet for remuneration from each return.

An analysis and consideration of the findings revealed a plan of pre-service teacher-training which had three parts. The first part was the procedure to be used in scheduling teacher-training. The second part was the procedure to be used by the teacher-trainer in conducting the training. The third part was the content to be included in the course. A statement of the plan follows:

- A. Procedure to schedule teacher-training advantageously.
1. The pre-training of journeymen is definitely needed and must be carried on in order to maintain effective instruction.
  2. It is recommended that training schedules be made in terms of the conditions such as availability of the tradesmen and the

availability of the person who is to give the training.

3. The optimum length of one teacher-training meeting is 90 minutes. The study showed that the minimum length of a meeting was 40 minutes, and the maximum was  $2\frac{1}{2}$  hours. This latter range could be used if certain situations demanded it.
4. In order to provide adequately for the training, the course should be 43 hours in length. If, however, a person taking the training learns more rapidly, a fewer number of hours may be adequate. If it should be necessary to give him more instruction, the time could be extended to the maximum of 72 hours.

B. Procedure to be used by the teacher-trainer in conducting the teacher-training.

1. The place to do the training would be the office, the conference room, the shop classroom, or some suitable place as determined by the subject the instructor is going to teach.
2. The instruction would be conducted by the supervisor or teacher-trainer by conferences.

3. The emphasis during the training would be placed upon making the training applicable to fit a specific course.
4. Class attendance was the criterion most frequently used for judging the proficiency of an evening school instructor. If the attendance were constant or increasing the instructor was considered capable.
5. It is not the practice to pay the journeymen while they are taking the training.
6. A high salary schedule should be maintained to make the teaching job attractive to the tradesmen. The average rate was \$2.00 an hour.

C. The content to be included in the course.

Unit No. I - Orientation - 3 hours

No. of Sessions		No. of Hours
1	Channels of authority in the school	$1\frac{1}{2}$
<u>1</u>	Forms and reports	<u><math>1\frac{1}{2}</math></u>
2		3

Unit No. II - Analysis -  $13\frac{1}{2}$  hours

6	The analysis of trades and jobs	9
<u>3</u>	The selection of course content	<u><math>4\frac{1}{2}</math></u>
9		$13\frac{1}{2}$

Unit No. III - Organization of instructional material -  $13\frac{1}{2}$  hours

3	The study of vocational part time philosophy	$4\frac{1}{2}$
<u>3</u>	The formulation of a course of study	<u><math>4\frac{1}{2}</math></u>
<u>3</u>	The use of job sheets and instructional material	<u><math>4\frac{1}{2}</math></u>
9		$13\frac{1}{2}$



No. of Sessions		No. of Hours
Unit No. IV - Methods of teaching - 13½ hours		
3	The study of learning difficulties	4½
4	The methods of instruction	6
1	The explanation of the use of the demonstration	1½
<u>1</u>	<u>The explanation of the use of the illustration</u>	<u>1</u>
9		13

The specific answers to subordinate question A, "How much time should be devoted to pre-service instruction training of evening school instructors?" may be found in the recommended plan A, questions 3 and 4.

The specific answers to subordinate question B, "What content should be included?" may be found in the recommended plan C, units I, II, III, and IV.

The specific answers to subordinate question C, "What teacher-training methods should be used?" may be found in the recommended plan B, questions 1 to 4 inclusive.

The specific answers to subordinate question D, "How much pay should prospective instructors receive while taking this training?" may be found in recommended plan B, questions 5 and 6.

The specific answers to subordinate question E, "What constitutes a feasible plan?" may be found in recommended plans A, B, and C.

The suggested course procedure and content, which have resulted from a review of pertinent literature and questionnaire findings, will greatly assist the authorities of the Beloit Vocational and Adult School,

Beloit, Wisconsin, in carrying out the teacher-training program.

The following additional problems which have been noted in this investigation are suggested for further study:

1. How may assistance be given to the teacher-trainer so that he will do a more effective job and also set a good example of teaching for the journeymen to follow?
2. What in-service teacher-training should be given to journeymen teachers after they have received this pre-service training?
3. What criteria should be used to determine the value of a satisfactory teaching job?

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INTERVIEW FORM FOR GATHERING INFORMATION CONCERNING PREPARING  
FOR TRADE EXTENSION EVENING SCHOOL TEACHERS

1. Which of the following are included in your course of study?

APPENDIX 1

INTERVIEW FORM

== FOR ==

F. A. HOLMES

BELOIT VOCATIONAL SCHOOL

BELOIT, WISCONSIN

2. Which of the following training methods are used?

1. Do you consider class the main method of training? ( )

2a. By training manual, the copy and then say "Go to 10" ( )

2b. By letting the student, supervised, do the

2c. By having individual practice with the supervisor

Exhibit I

INTERVIEW FORM FOR GATHERING INFORMATION CONCERNING PRE-TRAINING  
FOR TRADE-EXTENSION EVENING SCHOOL TEACHERS

---

**1. Which of the following are included in your course of study?**

1. In the pre-training do you incorporate methods of presentation? .....
2. Learning difficulties .....
3. Vocational part-time philosophy .....
4. Analysis of trades and jobs .....
5. Formulation of course of study .....
6. Psychology .....
7. Selection of course content .....
8. Explanation of demonstrations .....
9. Illustrations .....
10. Experiment .....
11. Channels of authority in the school .....
12. Professional courtesy .....
13. Forms and reports .....
14. Is the teacher given any job sheets or instructive material? .....
15. Is guidance and enrollment-boosting stressed? .....
16. Give others .....

---

**2. Which of the following training methods are used?**

17. Do you merely place the man on the job and tell him to "Go to it?" .....
18. By making him outline the course and then say, "Go to it?" .....
19. By letting him understudy an experienced teacher .....
20. By having individual pre-training from the supervisor .....

21. By giving him a pre-training course.....
22. By pre-training directly applicable to his specific course.....
23. By having him come to school on Saturdays.....
24. Before class in the evening.....
25. Just after class in the evenings.....
26. During the summer.....
27. Do you hold it in the class room?.....
28. In the assembly?.....
29. In the conference room?.....
30. In the office?.....
31. No particular place?.....
32. Is pre-training conducted by the state teacher trainer?.....
33. By the supervisor?.....
34. By the coordinator?.....
35. By the superintendent?.....
36. By the director?.....
37. Does this man receive salary during pre-training period?.....
38. Give others.....
39. What check is used to determine whether or not the teacher's position should be permanent?
  - a. Enrollment falling off.....
  - b. Leaving the shop in disorder.....
  - c. Not taking time to requisition material.....
40. Does your night school salary rate make the position attractive to the tradesman?.....
41. Minimum number of meetings.....maximum number.....
42. If you have this pre-training what is the length of time per meeting?.....
43. How many trade teachers do you have in the evening school?.....
44. How many evening school trade-extension classes do you have?.....
45. Give any additional suggestions which you think might be of value.....





APPENDIX B  
 REGULATORY SHEET  
 No.  
 118

Question	Response	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
1							
Average number of boats	41						
Maximum number of boats	78						
Minimum number of boats	12						
Average length	30 meters						
Maximum length	40 meters						
Minimum length	15 meters						
Average length	20 meters						





STATE OF TEXAS  
COMMISSIONERS OF THE GENERAL LAND OFFICE  
REPORT

Date		Description		Acres		Value		Remarks	
Year	Month	Section	Range	Section	Range	Section	Range	Section	Range
1881	12	1	10	1	10	1	10	1	10
1882	1	2	11	2	11	2	11	2	11
1883	2	3	12	3	12	3	12	3	12
1884	3	4	13	4	13	4	13	4	13
1885	4	5	14	5	14	5	14	5	14
1886	5	6	15	6	15	6	15	6	15
1887	6	7	16	7	16	7	16	7	16
1888	7	8	17	8	17	8	17	8	17
1889	8	9	18	9	18	9	18	9	18
1890	9	10	19	10	19	10	19	10	19
1891	10	11	20	11	20	11	20	11	20
1892	11	12	21	12	21	12	21	12	21
1893	12	13	22	13	22	13	22	13	22
1894	1	14	23	14	23	14	23	14	23
1895	2	15	24	15	24	15	24	15	24
1896	3	16	25	16	25	16	25	16	25
1897	4	17	26	17	26	17	26	17	26
1898	5	18	27	18	27	18	27	18	27
1899	6	19	28	19	28	19	28	19	28
1900	7	20	29	20	29	20	29	20	29
1901	8	21	30	21	30	21	30	21	30
1902	9	22	31	22	31	22	31	22	31
1903	10	23	32	23	32	23	32	23	32
1904	11	24	33	24	33	24	33	24	33
1905	12	25	34	25	34	25	34	25	34
1906	1	26	35	26	35	26	35	26	35
1907	2	27	36	27	36	27	36	27	36
1908	3	28	37	28	37	28	37	28	37
1909	4	29	38	29	38	29	38	29	38
1910	5	30	39	30	39	30	39	30	39
1911	6	31	40	31	40	31	40	31	40
1912	7	32	41	32	41	32	41	32	41
1913	8	33	42	33	42	33	42	33	42
1914	9	34	43	34	43	34	43	34	43
1915	10	35	44	35	44	35	44	35	44
1916	11	36	45	36	45	36	45	36	45
1917	12	37	46	37	46	37	46	37	46
1918	1	38	47	38	47	38	47	38	47
1919	2	39	48	39	48	39	48	39	48
1920	3	40	49	40	49	40	49	40	49
1921	4	41	50	41	50	41	50	41	50
1922	5	42	51	42	51	42	51	42	51
1923	6	43	52	43	52	43	52	43	52
1924	7	44	53	44	53	44	53	44	53
1925	8	45	54	45	54	45	54	45	54
1926	9	46	55	46	55	46	55	46	55
1927	10	47	56	47	56	47	56	47	56
1928	11	48	57	48	57	48	57	48	57
1929	12	49	58	49	58	49	58	49	58
1930	1	50	59	50	59	50	59	50	59
1931	2	51	60	51	60	51	60	51	60
1932	3	52	61	52	61	52	61	52	61
1933	4	53	62	53	62	53	62	53	62
1934	5	54	63	54	63	54	63	54	63
1935	6	55	64	55	64	55	64	55	64
1936	7	56	65	56	65	56	65	56	65
1937	8	57	66	57	66	57	66	57	66
1938	9	58	67	58	67	58	67	58	67
1939	10	59	68	59	68	59	68	59	68
1940	11	60	69	60	69	60	69	60	69
1941	12	61	70	61	70	61	70	61	70
1942	1	62	71	62	71	62	71	62	71
1943	2	63	72	63	72	63	72	63	72
1944	3	64	73	64	73	64	73	64	73
1945	4	65	74	65	74	65	74	65	74
1946	5	66	75	66	75	66	75	66	75
1947	6	67	76	67	76	67	76	67	76
1948	7	68	77	68	77	68	77	68	77
1949	8	69	78	69	78	69	78	69	78
1950	9	70	79	70	79	70	79	70	79
1951	10	71	80	71	80	71	80	71	80
1952	11	72	81	72	81	72	81	72	81
1953	12	73	82	73	82	73	82	73	82
1954	1	74	83	74	83	74	83	74	83
1955	2	75	84	75	84	75	84	75	84
1956	3	76	85	76	85	76	85	76	85
1957	4	77	86	77	86	77	86	77	86
1958	5	78	87	78	87	78	87	78	87
1959	6	79	88	79	88	79	88	79	88
1960	7	80	89	80	89	80	89	80	89
1961	8	81	90	81	90	81	90	81	90
1962	9	82	91	82	91	82	91	82	91
1963	10	83	92	83	92	83	92	83	92
1964	11	84	93	84	93	84	93	84	93
1965	12	85	94	85	94	85	94	85	94
1966	1	86	95	86	95	86	95	86	95
1967	2	87	96	87	96	87	96	87	96
1968	3	88	97	88	97	88	97	88	97
1969	4	89	98	89	98	89	98	89	98
1970	5	90	99	90	99	90	99	90	99
1971	6	91	100	91	100	91	100	91	100
1972	7	92	101	92	101	92	101	92	101
1973	8	93	102	93	102	93	102	93	102
1974	9	94	103	94	103	94	103	94	103
1975	10	95	104	95	104	95	104	95	104
1976	11	96	105	96	105	96	105	96	105
1977	12	97	106	97	106	97	106	97	106
1978	1	98	107	98	107	98	107	98	107
1979	2	99	108	99	108	99	108	99	108
1980	3	100	109	100	109	100	109	100	109
1981	4	101	110	101	110	101	110	101	110
1982	5	102	111	102	111	102	111	102	111
1983	6	103	112	103	112	103	112	103	112
1984	7	104	113	104	113	104	113	104	113
1985	8	105	114	105	114	105	114	105	114
1986	9	106	115	106	115	106	115	106	115
1987	10	107	116	107	116	107	116	107	116
1988	11	108	117	108	117	108	117	108	117
1989	12	109	118	109	118	109	118	109	118
1990	1	110	119	110	119	110	119	110	119
1991	2	111	120	111	120	111	120	111	120
1992	3	112	121	112	121	112	121	112	121
1993	4	113	122	113	122	113	122	113	122
1994	5	114	123	114	123	114	123	114	123
1995	6	115	124	115	124	115	124	115	124
1996	7	116	125	116	125	116	125	116	125
1997	8	117	126	117	126	117	126	117	126
1998	9	118	127	118	127	118	127	118	127
1999	10	119	128	119	128	119	128	119	128
2000	11	120	129	120	129	120	129	120	129
2001	12	121	130	121	130	121	130	121	130
2002	1	122	131	122	131	122	131	122	131
2003	2	123	132	123	132	123	132	123	132
2004	3	124	133	124	133	124	133	124	133
2005	4	125	134	125	134	125	134	125	134
2006	5	126	135	126	135	126	135	126	135
2007	6	127	136	127	136	127	136	127	136
2008	7	128	137	128	137	128	137	128	137
2009	8	129	138	129	138	129	138	129	138
2010	9	130	139	130	139	130	139	130	139
2011	10	131	140	131	140	131	140	131	140
2012	11	132	141	132	141	132	141	132	141
2013	12	133	142	133	142	133	142	133	142
2014	1	134	143	134	143	134	143	134	143
2015	2	135	144	135	144	135	144	135	144
2016	3	136	145	136	145	136	145	136	145
2017	4	137	146	137	146	137	146	137	146
2018	5	138	147	138	147	138	147	138	147
2019	6	139	148	139	148	139	148	139	148
2020	7	140	149	140	149	140	149	140	149
2021	8	141	150	141	150	141	150	141	150
2022	9	142	151	142	151	142	151	142	151
2023	10	143	152	143	152	143	152	143	152
2024	11	144	153	144	153	144	153	144	153
2025	12	145	154	145	154	145	154	145	154
2026	1	146	155	146	155	146	155	146	155
2027	2	147	156	147	156	147	156	147	156
2028	3	148	157	148	157	148	157	148	157
2029	4	149	158	149	158	149	158	149	158
2030	5	150	159	150	159	150	159	150	159
2031	6	151	160	151	160	151	160	151	160
2032	7	152	161	152	161	152	161	152	161
2033	8	153	162	153	162	153	162	153	162
2034	9</								

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APPENDIX 4  
TABULATION SHEET  
FOR  
METHOD

Question	Wisconsin	F		P		Public	F		P		Private	F		P		Total	F		P	
		Y	N	Y	N		Y	N	Y	N		Y	N	Y	N		Y	N	Y	N
1		24	9	73	27		3	3	50	50		1	2	34	66		28	14	66	34
17		0	33	0	100		1	5	16	84		0	3	0	100		1	41	3	97
18		8	25	25	75		1	5	16	84		2	1	66	34		11	31	26	74
19		14	19	43	57		2	4	34	66		2	1	66	34		18	24	43	57
20		22	11	66	34		3	3	50	50		2	1	66	34		27	15	65	35
21		10	23	31	69		3	3	50	50		2	1	66	34		15	27	35	65
22		18	15	55	45		3	3	50	50		3	0	100	0		24	18	57	43
23		6	27	18	82		1	5	16	84		0	3	0	100		7	35	16	84
24		12	21	36	64		2	4	34	66		2	1	66	34		16	26	38	62
25		7	26	22	78		2	4	34	66		1	2	34	66		10	32	24	76
26		5	28	15	85		2	4	34	66		2	1	66	34		9	33	22	78
27		12	21	36	64		3	3	50	50		1	2	34	66		16	26	38	62
28		2	31	6	94		1	5	16	84		0	3	0	100		3	39	7	93
29		16	17	48	52		2	4	34	66		1	2	34	66		19	23	45	55
30		20	13	61	39		2	4	34	66		2	1	66	34		24	18	57	43
31		6	27	18	82		1	5	16	84		0	3	0	100		7	35	16	84
32		5	28	15	85		3	3	50	50		1	2	34	66		9	33	22	78
33		13	20	39	61		3	3	50	50		1	2	34	66		17	25	41	59
34		16	17	48	52		2	4	34	66		0	3	0	100		18	24	42	58
35		3	30	9	91		0	6	0	100		0	3	0	100		3	39	7	93
36		21	12	64	36		2	4	34	66		1	2	34	66		24	18	57	43
38							2	4	34	66		1	2	34	66					
39																				
a		23	10	69	31		1	5	16	84		0	3	0	100		24	18	57	43
b		13	20	39	61		1	5	16	84		0	3	0	100		14	28	34	66
c		9	24	27	73		1	5	16	84		0	3	0	100		10	32	24	76
43		Ranged from 1 to 60 and averaged 18																		
44		Ranged from 2 to 97 and averaged 18																		
45		Should possess flexibility to fit all situations																		
		F--Frequency																		
		P--Percentage																		
		Y--Yes																		
		N--No																		

APPENDIX A  
TRAINING SHEET  
FOR  
ROPER

No.	Description	1-1980		2-1980		3-1980		4-1980		5-1980		6-1980		7-1980		8-1980		9-1980		10-1980		11-1980		12-1980		
		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	
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Should possess flexibility in all areas  
ranked from 1 to 5 and averaged 10  
ranked from 1 to 5 and averaged 10



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APPENDIX 5  
TABULATION SHEET  
FOR  
REMUNERATION

Question	Wisconsin	F		P		Public				Private				Total	F		P	
		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N		Y	N	Y	N
37		9	24	27	73	2	4	34	66	1	2	34	66	12	30	28	72	
40		18	15	55	45	3	3	50	50	3	0	100	0	24	18	57	43	
														F--Frequency				
														P--Percentage				
														Y--Yes				
														N--No				



## APPENDIX 6

THE STATE OF WISCONSIN  
STATE BOARD  
OF  
VOCATIONAL AND ADULT EDUCATION  
State Office Building  
Madison 2, Wisconsin

Copy

April 8, 1944

My dear Director:

Mr. F. A. Holmes, Trade and Industrial Coordinator at the Beloit, Wisconsin Vocational School, is making a study incidental to setting up a procedure for the selection and pretraining of Trade Extension teachers.

Any assistance which you can give Mr. Holmes will be appreciated by this department. Mr. Holmes is thorough and conscientious. I believe that the need for such studies is recognized by everyone faced with this problem in the state.

Very truly yours,

R.L.Welch:rb

Supervisor  
Trade and Industrial Education



## APPENDIX 7

THE STATE OF WISCONSIN  
STATE BOARD  
OF  
VOCATIONAL AND ADULT EDUCATION  
State Office Building  
Madison 2, Wisconsin

Copy

April 8, 1944

To Directors of Vocational Schools

My dear Director:

Mr. F. A. Holmes, Trade and Industrial Coordinator at the Beloit, Wisconsin Vocational School, has conferred with me relative to a study which he wants to make for the purpose of establishing a basis from which he wishes to form a procedure for the selection and pre-training of Trade Extension teachers.

Mr. Holmes is a capable man and his ability to carry out such work as referred to above is respected by his associates in this state.

Any assistance which you can give Mr. Holmes will be appreciated by this department.

Very truly yours,

R.L.Welch:rb

Supervisor  
Trade and Industrial Education

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