

**DIRECTED**  
**OBSERVATION AND TEACHING**  
**IN**  
**SECONDARY SCHOOLS**

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## PREFACE

The responsibilities of the training school as a unit of the teacher-training institution in the professional preparation of teachers has received increasing attention in recent years. The evaluation of the practical aspects of teacher training has brought about the liberalizing and professionalizing of academic courses and a re-organization of the technical and applied phases of training, the aspect in which the training school is especially involved.

There is little question as to the merit of a program of teacher training whereby the teacher-in-training is inducted gradually as compared to a program which at once plunges the student into the complete activity of teaching without adequate preliminary preparation. To provide this preliminary preparation and to make possible the gradual induction of students into the teaching activity, the method set up in the following pages is different in that it approaches the problem from an analytical point of view. While this method of approach is not new, the extent to which it is employed sets this procedure off from the typical pre-teaching program. This viewpoint is based upon the assumption that in learning to perform so complex an activity as teaching it is essential to study analytically the different phases in order to develop an intelligent understanding and effective skill in the performance of the whole.

In an analytical treatment of this type it is necessary first, to define problems clearly and, second, to direct the attention of the student to a study of the specific aspects of the problem. The text treatment of the problem aims to provide a clear understanding of the phases considered. The directed observation assignments according to which the student is to react to the observation of teaching direct attention to the specific details of the activity involved.

The use of this text in directing the attention of the pre-service teacher in the observation, analytical study, and evaluation of teaching activity, is by no means confined to the work of the training school, but will be of value to the in-service teacher by making possible a careful and directed self-appraisal. It will also be of

value to the supervisor in public schools in directing the attention of teachers in the interest of improving the quality of instruction.

The writers are indebted to various members of the faculty and students of Colorado State Teachers College who have contributed much to the illustrative materials used and suggested improvements in the experimental use of these materials. Indebtedness to publishers for permission to quote is specifically acknowledged in the text.

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## INTRODUCTION

### THEORIES UNDERLYING A TEACHER-TRAINING PROGRAM

Observation of the work of the successful teacher has long been one of the recognized essentials in the professional preparation of teachers. It has been assumed that the observation of effective teaching activity by the beginner more or less automatically results in creating in the observer the ability to do the things which have been observed. As a result, although the function of observation is readily granted, the customary practice in teacher-training institutions is to separate rather definitely and often entirely the functions of observation from those phases in the preparation of teachers in which observation might be of great value. In evidence of this it is no difficult task to find highly developed and well-organized theory courses, courses in methods in teaching, in educational principles, etc., but difficult to find one in which the observation of theories, principles, and methods is given any prominent part. It is also difficult to find well-organized courses in observation in which there is a definite attempt made to tie up the theory, principles, and methods studied in the abstract in the education classroom with actual classroom practices in teaching in secondary schools. An investigation into educational literature dealing with observation as a phase of teacher preparation will reveal that observation as an essential phase in the professional preparation of teachers has not been given adequate recognition.

Prior to 1928 the functions of observation as a phase in the professional preparation of teachers at Colorado State Teachers College were treated as incidental rather than essential. Following the required preliminary courses, few of which utilized observation of teaching as a means of teaching educational principles, the student was required to enroll in a course titled Pre-Teaching Observation. If the student were especially interested in junior high school English he would be assigned to the Training Teacher in Junior High School English under whose direction he would engage for one quarter in observation of the work of the teacher

of English in the junior high school. Theoretically, this might appear to be satisfactory; however, in actual practice the results were not what might be anticipated. Theories and principles learned in the classroom as abstractions were not readily observable by the student who perhaps had reentered the high school classroom for the first time since being graduated from the junior high school five or six years before. Teachers who had not taught the methods or principles courses now had the task of directing the student to apply what had been learned in pre-requisite courses. In such situations as described above the student who was unable to bridge the gap between the college classroom and the high school classroom would quite naturally resort to the simplest way out of the situation, the making of stenographic reports of the classroom activity observed. He would find it much easier to enumerate the phases of the activity in which the teacher or students engaged than to recognize and point out educational principles in application. If the training teacher accepted such reports on observations, in due time the observer became the teacher of the class and more or less conscientiously strove to imitate the practices which he had observed, not because he recognized them as sound practices, but because he had seen them done and assumed that if he could reproduce them that he too would be a successful teacher. If the training teacher refused to accept stenographic report type observations at first, subsequent experiences soon revealed that anything else was highly improbable so long as observation remained distinct and apart from the teaching of principles and methods.

As an outgrowth of the situation presented above, the writers, with the coöperation of Training Teachers of the Secondary School Department, began the development of a course which would bridge the gap between the college classroom in educational theory and principles, and the high school classroom. Beginning with an agreement concerning the functions and organization of the course in observation and through the continued study of the problem, the materials in this book were prepared and used first through the lecture method and later in two experimental mimeographed editions. The general theoretical basis upon which this material is organized and presented is briefly stated below.

There are two distinct but correlated phases involved in the professional preparation of teachers as involved in the study of

these materials. These may be designated as the general and the specific preparation phases. General preparation really has its beginning with the first course in educational theory, principles, or methods in which the student may enroll. In this course principles and practices which the student may have studied in previous courses or with which he may come in contact for the first time are considered with respect to their significance to teaching in the secondary school. A general educational principle, however, takes on different significance as it is interpreted in terms of the subject matter and activities in the secondary school. This gives rise to the specific phase of the course which is simply the actual application of principles to actual classroom situations and practices.

It has been determined by experimental use that the general phase of this course may well be under the direction of the Director of Training or the Principal of the Secondary School, and that the specific phase should be under the direction of the training teacher. In this way teachers-in-training, regardless of their subject-matter interests, or major preparation, meet together to consider general principles and practices in teaching in the secondary school. This introduction is followed by the specific application of the principles and practices considered in the classroom which involve the subject matter and activities of the department representing the student's major interest. Specifically, by way of illustration, majors in Industrial Education, Physical Education, History, English, etc., may meet to consider principles involved in the assignment. These students then go to the training teacher to whom they have been assigned where they engage in the study and observation of the application of the principles of the assignment as they apply in the teaching of their particular subject or activity. In this way it has been found possible to establish an effective connection between the abstract and the specific in relation to classroom teaching practices.

#### SUGGESTIONS ON HOW TO STUDY

The viewpoint expressed throughout this book is that the teacher's chief function is to direct the learning activity of the student rather than to present to the student a vast amount or variety of experience with the assumption that the student so exposed will efficiently learn. A logical continuation of this

assumption as it applies to the writers of textbooks would be that it should not be considered adequate to place before the reader a vast amount or variety of experience without making some effort to direct the reader so that he may economically utilize the materials presented to the end that efficient learning takes place.

To facilitate the study of the materials presented in this volume definite provisions have been made. These will now be enumerated and explained in detail.

(1) *Problems.* Learning takes place, in the study of material of the type represented by books in education, most economically when the student recognizes the problem with which his study is concerned and is aware of the various phases of the problem such as would result from an analytical study of it.

Each chapter has a main problem with which it is concerned. The problem is further analyzed into minor or sub-problems which are listed at the opening of the chapter and which are used as section headings throughout the chapter. The student should develop the attitude that in study it is much more desirable to study in terms of problems than to study in terms of topics. In the study of the Assignment it would be much better to be conscious that study is for the purpose of determining *how the assignment may become a more effective means of directing learning* than to study with no purpose other than to study *about* the Assignment.

(2) *Educational Terms.* Throughout the discussion of the various problems, it has been recognized that many who read this book may have little or no previous experience in reading educational literature and consequently have an inadequate acquaintance with many of the terms commonly used in textbooks of education. This problem is met in two ways: first, by reducing the educational terms used to a brief list of essential terms most commonly used, and second, by carefully discussing and defining educational terms as they are introduced. At the close of each chapter educational terms which appear for the first time in that chapter and which are essential in the vocabulary of the teacher are listed. The student should check these lists carefully and make a special effort to add to his vocabulary the new terms which appear in any chapter before he goes on to the study of following chapters.

(3) *Directed Study Tests.* Objective tests accompany each chapter. These tests are designed purely as study tests and



should not be used for grading purposes. The items of the test involve the basic principles and information the learning of which is an object of the course.

These tests have been standardized adequately for instructional purposes so that the student may upon the checking of his test, compute his score, and determine his relative position with respect to the members of the classes used in the standardization of the test. This phase of the test, the checking of responses, computing scores, and determining values of scores in terms of the percentile tables supplied at the close of the tests will be presented more completely in connection with the first test.

Correct responses to the directed study test items may be found on pages 384 to 390. Whether or not the inclusion of correct responses to study tests was advisable was debated for some time. The first experimental mimeographed edition did not include the correct response section. Because the tests are solely to enable the student to study more effectively and have absolutely no direct connection with grading, the danger that the student may answer the test items by referring to the correct responses rather than to answer them first from his own knowledge and understanding, is minimized. The student who fails to make use of the correct responses is by so doing deliberately neglecting to take advantage of a valuable study help.

(4) *Directed Observations.* As will be pointed out in detail in the discussion of the theory of observation, teaching is so complex an activity that it is highly improbable that the average beginner will find it possible to observe teaching activity as a whole at the outset of his study. This viewpoint is based upon the assumption stated in the preface that in learning to perform as complex an activity as teaching it is necessary to study the different phases in order to develop intelligent understanding and effective skill in the performance of the whole. In an analytical treatment we must define problems clearly and direct the attention of students to a study of the specific aspects involved. On the assumption that it is too difficult for the average beginner in education to observe intelligently a total teaching activity, directed observation assignments are included in each chapter, beginning with Chapter II. When the student has studied the Assignment then is the logical time for him to observe the Assignment. Only when the student has studied all of the



phases which combine to make the total teaching activity, should he be expected to be able to observe the total activity intelligently. Specific directions for the use of each observation are included in the observation assignment. In the Directed Observation Assignments it will be noted that the student is instructed to report his observation on a duplicate of the printed observation form. For purposes of such reporting it would be possible to mimeograph the observation forms which might then be placed in the hands of the student, or, more simply, the student might duplicate the observation form indicating items by number without writing out the statements. The latter suggestion would simplify the problem of reporting materially, as well as simplifying the work of the teacher in training in checking the lengthy form.

(5) *Supplementary Readings.* In addition to reading the materials presented in this volume the student should read as time will permit other educational literature to get a variety of viewpoints and different attitudes in education. To facilitate such reading, supplementary readings are suggested at the close of each chapter. These readings include not only educational textbooks, but magazine articles which have appeared in recent educational periodicals and in some instances especially valuable bulletins and pamphlets. Certain of these references are mentioned with such frequency or are of such value that they should be known by every student interested in teaching in the secondary school. The books comprising this list which might well be recommended as a nucleus of a professional library include the following :

#### BOOKS

- Almack, J. C., and Lang, A. R., *The Beginning Teacher.* Houghton Mifflin Company (Boston, 1928).
- Armentrout, W. D., *The Conduct of Student Teaching in State Teachers Colleges.* Colorado Teachers Education Series No. 2, Colorado State Teachers College (Greeley, 1927).
- Avent, J. E., *Beginning Teaching.* University of Tennessee (Knoxville, 1926).
- Burton, W. H., *Supervision and the Improvement of Teaching.* D. Appleton and Company (1922).
- Colvin, S. S., *An Introduction to High School Teaching.* The Macmillan Company (New York, 1917).
- Douglass, H. R., *Modern Methods in High School Teaching.* Houghton Mifflin Company (Boston, 1926).

- Frasier, G. W., and Armentrout, W. D., *An Introduction to Education; An Introduction to the Literature of Education*. Scott, Foresman and Company (Chicago, 1924 ; 1931).
- Monroe, W. S., *Directing Learning in the High School*. Doubleday, Page and Company (Garden City, New York, 1927).
- Mueller, A. D., *Teaching in Secondary Schools*. The Century Company (New York, 1928).
- Parker, S. C., *Methods of Teaching in High School*. Ginn and Company (Boston, 1920).
- Reeder, E. H., *Simplifying Teaching*. Laidlaw Brothers (New York, 1929).
- Smith, William A., *Secondary Education in the United States*. The Macmillan Company (New York, 1932).
- Stark, W. E., *Every Teacher's Problems*. The American Book Company (New York, 1922).
- Thorndike, E. L., and Gates, A. I., *Elementary Principles of Education*. The Macmillan Company (New York, 1929).
- Waples, Douglas, *Procedures in High School Teaching*. The Macmillan Company (New York, 1924).

## MAGAZINES

- High School Teacher, The*. Brown Publishing Company (Blanchester, Ohio).
- Journal of Educational Psychology*. Warwick and York, Incorporated (Baltimore, Maryland).
- Journal of Educational Research*. Public School Publishing Company (Bloomington, Illinois).
- Junior-Senior High School Clearing House*. School of Education, New York University (New York).
- School Review*. The University of Chicago (Chicago, Illinois).
- Teachers Journal and Abstract*. Colorado State Teachers College (Greeley).
- The North Central Association Quarterly*. 119 Exchange Place, Kalamazoo, Michigan.

## BULLETINS

- Educational Research Bulletin*. Published fortnightly by the Bureau of Educational Research, Ohio State University (Columbus, Ohio).
- University of Illinois Bulletin*. Bureau of Educational Research, College of Education, University of Illinois (Urbana, Illinois).

A SUMMARY OF STUDY PROCEDURE. A study procedure for the student using this book involving these five study aids is

suggested here. (a) Prior to the study of a chapter the problem to which it gives consideration should be noted. Throughout the reading of the various sections which make up the chapter the sub-problems with which they are concerned should be recognized. (b) The chapter should be read as a unit, rapidly but carefully. Use should be made of such study devices as underscoring, marginal notations, outlining, etc. which will make possible a rapid review. (c) Study the word list at the close of the chapter to make certain that the new educational terms have a definite meaning. (d) Mark the items in the directed study test. Items with respect to which there is an uncertainty as to the correct response should be marked "?" or in some other identifying way, following which the chapter or parts involved should be reread and the reactions to such items definitely cleared up. At the conclusion of this phase of the study all of the items of the test should be marked. (e) Refer to the correct responses to the tests at the back of the book, and mark all items answered incorrectly. (f) Reread the chapter or parts of the chapter involving the items missed in the test to determine if the error was a mistake in reading or checking, or if it represents a point concerning which the answer as given is not understood. Such items should be brought up in the class discussion of the chapter. (g) Compute the score on the study test as directed in connection with the first test and determine the percentile score. A low percentile score indicates either low efficiency in study or inadequate time allowed for study which should be corrected by careful attention to study habits. (h) Examine the annotated bibliography of selected books and magazine references offering supplementary readings on the problems of the chapter. As time will permit, select from the lists such readings as you may be especially interested in or as relate to problems which you have difficulty in understanding. Bring into the class discussion of the problems of the chapter the attitude and additional information derived from such reading. (i) Practice regular review. To be consistent with effective learning procedures regular review should be practiced. To encourage and facilitate such practice, at the close of the various chapters beginning with the second, specific suggestions for review and specific review procedures are suggested.

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# DIRECTED OBSERVATION AND TEACHING IN SECONDARY SCHOOLS

## I

### THE PROFESSIONAL PREPARATION OF TEACHERS

*What principles and practices should be observed by teacher-training institutions in the professional preparation of teachers?*

1. How is teaching like and unlike a trade or an applied science?
2. In what respects is teaching a fine art?
3. How may the viewpoint, teaching as a fine art, influence teaching activity?
4. What should be the objective in teacher training with respect to the levels of teaching?
5. What part should student teaching play in the professional preparation of teachers?
6. What is the relation of theory and practice in the professional preparation of teachers?
7. What is the fundamental difference between the preparation of teachers and the preparation of other professional workers?
8. What is the relation of subject matter and method?
9. What is meant by the professionalization of subject matter?
10. What are the various types of courses needed in the preparation of teachers?
11. What is the relation between the major preparation and the type of position to which graduates of teacher-training institutions go?
12. What are the aims of student teaching?
13. How may directed observation contribute to the training of teachers?
14. What is the relation of directed observation to subject-matter preparation?
15. Educational Terms.
16. Directed Study Test.

17. Directions for Scoring the Directed Study Tests.
18. How to Interpret Directed Study Test Scores.
19. Supplementary Readings
20. Manuals for Observation and Participation.

1. *How is teaching like and unlike a trade or an applied science?*

Teaching has characteristics of a trade, an applied science, and a fine art. There are three points at which it has appropriate analogies\* with the artisan trades such as carpentry, bricklaying, plumbing, and the like. In all these activities we find the need for skill,\* the use of plans and specifications, and the ideal of good workmanship. However, if we think of teaching as merely a trade we are apt to underemphasize the scientific and creative elements in teaching. The teacher must be a planner as well as one who carries out plans of others.

Teaching is more than a trade, it is an applied science\* like surgery, engineering, and agriculture. As an applied science teaching utilizes methods developed from psychological and sociological principles.\* It is an applied science in so far as objective measurements are used in evaluating one's work. Educational measurements are taking much of the guess work out of teaching. As the scientific study of education develops it is likely that the applied science character of teaching will be more and more emphasized.

Just as there are certain limitations in thinking of teaching as an artisan trade likewise there are limitations in conceiving of it as an applied science. If we think of teaching merely as an applied science it is possible that we will neglect the more intangible outcomes, such as attitudes, appreciations, ideals, and the like. It is true that many of the problems in teaching can be solved through the application of scientific methods.\* But in the emphasis upon statistics\* and measurement there is a danger that the significance of ideals and appreciations will become obscured. Science\* cannot tell us what to teach. The questions of the kind of results we want to secure in teaching is not a matter of scientific discovery. It is not a problem of finding out something that already exists, but of finding out what it is that we should really desire to achieve

\* This mark following a term or an expression indicates that it is included in the list of educational terms defined or interpreted at the close of the chapter, page 21. Unless expressions so marked have a definite meaning to the reader reference to its interpretation should be made before the reading of the chapter is continued.



in teaching. Scientific tests in reading may tell us exactly the student's speed and comprehension; how fast and how well he can read; but the tests never tell us what he should read. We need something more than the science\* of education. We need a philosophy of education.\* Unless we know where we are going there is not much comfort in being assured that we are on the way and traveling fast.

2. *In what respects is teaching a fine art?* When we think of teaching as a fine art we associate it with the creative arts such as literature, music, painting, sculpture, and architecture. It is easy to recognize the creative element in teaching, the importance of ideals. This conception\* of teaching in no way should minimize the significance of the scientific study of teaching nor the importance of skills, plans, and specifications and good workmanship.

These three aspects of teaching as a trade, an applied science, and a fine art correspond roughly to three levels of achievement in the skill and mastery of teaching. On the first level the skills are narrow and largely mechanical. On the second level the teacher not only knows his tools and how to use them, but his attitude towards them is scientific. On the third level the teacher becomes artistic, creative, and discriminating with respect to his practices on the lower levels. Efficiency on the first and second level means a working knowledge of the necessary tools of teaching. On the third level teaching is an instrument for giving reality and vitality to life. It is a means to an end which is growth, enlargement, and enrichment of the child's experience.

Activities listed under the three levels of teaching can be grouped into two general classes which may be termed for convenience the external elements of skill and the elements of insight and resourcefulness. The first group are by far the simpler. They would include the activities on the first and second levels, and can best be described in a negative way by such common errors as limiting questions to the responsive members of the class, calling on students before stating the question, failing to speak distinctly, to write legibly, to establish a systematic and habitual method of caring for routine matters, to make definite assignments, and the like. Teachers may overcome these defects by developing habits of good form in teaching.

The second group, the elements of insight and resourcefulness, are obviously more important than the external elements of skill.

They differ from the first group in that they depend upon intelligent adaptation\* rather than upon mechanical\* and habitual\* processes. Reference here is made to such factors as aptness and readiness in illustration, adapting the work to the capacity and experiences of the learner, asking thought-provoking questions, a sense of the relative value\* of the various types of subject matter, an insight into the significance of education and a sound philosophy of education. These and similar abilities play a most important part in artistic teaching. They are the finer and less obvious factors in real teaching. They mean not only a thorough knowledge of subject matter and the child, but also initiative, originality, and ability in adjusting to rapidly changing situations.

3. *How may the viewpoint, teaching as a fine art, influence teaching activity?* The way in which subject matter is presented to the student by any teacher will depend upon the purpose he seeks to accomplish. If he is nothing more than an artisan or even an applied scientist, then subject matter is just so much material for him to transmit to the pupil. If the teacher is an artist he uses this material for the purpose of forming certain ideals, appreciations, and attitudes, and to give new and meaningful significance to the facts of everyday life. There need not be a conflict between these views or aims. Legibility and speed in penmanship can be developed along with an appreciation and desire for neatness. A spelling consciousness can be developed together with the ability to spell. Rate and comprehension in reading need not be sacrificed in developing a keen appreciation and taste for good literature. Important historical and geographical facts need not be neglected in bringing about the enlargement of the significance of direct personal experience. The artist teacher presents his material so that it appeals to the learner as having sufficient worth to demand serious effort.

Only as the teacher develops through ever-widening and more meaningful experiences can he gradually reach the stage of artistic and creative teaching. An interesting feature of the teacher's work is that there is no limit to the improvement which it is possible to make in teaching as fine art. So complex is the process of teaching that perfection may be more nearly attained in almost any other field.

4. *What should be the objective\* in the training of teachers with respect to the levels of teaching?* These three aspects of teaching