AN EXPERIMENTAL STUDY OF THE RELATIVE EFFECTIVENESS OF CLASSROOM OBSERVATION AND SIMULATED TEACHING IN AN INTRODUCTORY EDUCATIONAL PSYCHOLOGY COURSE

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ABSTRACT

AN EXPERIMENTAL STUDY OF THE RELATIVE EFFECTIVENESS OF CLASSROOM OBSERVATION AND SIMULATED TEACHING IN AN INTRODUCTORY EDUCATIONAL PSYCHOLOGY COURSE

By Gerald L. Hershey

The purpose of this study was to compare experimentally the effects of classroom observation and simulated teaching experiences in a six-credit introductory educational psychology course.

Two-hundred and eighty students who enrolled for their first professional education course in the College of Education at Michigan State University were randomly assigned to ten sections taught by five different instructors. Each instructor taught two sections, in one of which a classroom observation procedure was used and in the other a simulated teaching procedure. Thus, the effect of instructor personality was counterbalanced.

Students in the two treatments were exposed to many of the same kinds of experiences during the ten week term. For example, all the students were exposed to the same lectures, demonstrations, films, hour examinations, and written assignments. The differences occured in the nature of a particular supplementary experience designed to provide some application of psychological principles.

Students in the Classroom Observation Group observed in public school classrooms for a maximum of once a week for eight weeks in varying amounts of time from 30 to 180 minutes per observation. Students in the Simulated Teaching Group met with their classmates in groups of from four to six outside of class and participated in a simulated teaching experience in which one of them took the part of the "teacher" who taught an actual lesson for 20 to 60 minutes while the remainder of their classmates took the part of the "pupils."

At the end of the term the following criterion instruments were administered to all students:

(a) Course Grades
Consisted of scores on written assignments, hour examinations, quizzes, and the final examination.

(b) Final Examination
Consisted of 100 multiple choice items, 75 of which were applicational in nature and 25 of which were related to knowledge of fact or content.

(c) Minnesota Teacher Attitude Inventory
An objective test designed to predict the type of teacher-pupil relations teachers will maintain in the classroom.

(d) Career Plans Questionnaire
A 10 item objective test designed to measure an individual's degree of motivation for teaching as a future career.

(e) The Redwood School Test
A 110 item objective case study test of a one room school designed to measure the ability to apply psychological principles.

(f) Course Evaluation Scale
An objective scale designed to measure the relative degree of satisfaction or dissatisfaction with various aspects of the course.

Analysis of Variance, chi square, and t test statistical techniques were used in analyzing the data. The results of the analyses were as follows:

(a) No significant differences were found between the two treatment groups on any of the following criteria: course grades, final examination, Minnesota Teacher Attitude Inventory, Career Plans Questionnaire, The Redwood School Test, and the Course Evaluation Scale.

(b) Although the method of teaching had no significant effect, the effect of the individual instructor was marked. Some instructors had a significantly greater effect on students' career plans than did other instructors. Furthermore, the degree of satisfaction with the course was related to which instructor a student was assigned.

(c) Students in the Classroom Observation Group reported that the observation experience was the most beneficial of all experiences in the course; contributed greatly to their growth as future teachers; affected their attitudes about teaching as a future career; and was helpful in terms of understanding the concept of individual differences and principles of classroom discipline.

(d) Students in the Simulated Teaching Group reported that the simulated teaching experience was most helpful in terms of understanding principles involved in the teaching of concepts and skills and was helpful in learning how to state teaching objectives in behavioral terms.

(e) Irrespective of the group to which they were assigned, females scored higher than males on course grades, final examination, Minnesota Teacher Attitude Inventory and the Redwood School Test.

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By

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THE USE OF CLASSROOM OBSERVATIONS IN COLLEGE COURSES IN EDUCATIONAL PSYCHOLOGY

INTRODUCTION

College courses in educational psychology have been the focus of criticism for a number of years. One of the most frequent complaints has been the failure of such courses to relate theory to practice. As a means of attempting to bridge this gap educational psychologists have turned to one of the oldest techniques in teacher education: classroom observation.

There is substantial evidence in the current literature to show that classroom observation is being widely used in educational psychology courses. The use of this technique has been primarily justified by surveys which consistently indicate favorable impressions by both teachers and students about the worth of the observation experiences. There are virtually no experimental studies which indicate the contributions of classroom observation to the goals of educational psychology courses. The need for experimental research in this area has recently been voiced by a number of professional groups and by educational psychologists. It is the purpose of the present chapter to develop each of the above statements which attempt to provide some background for the present study.

CRITICISMS OF EDUCATIONAL PSYCHOLOGY COURSES IN TEACHER EDUCATION

Educational psychology, under various titles, has been a part of the curriculum of teacher education in the United States since its early beginnings (15, 52). Since its introduction as one of the basic courses in teacher education programs, it has undergone periods of criticism. Some of these criticisms concerned such things as the proliferation of educational psychology courses (28, 41), textbooks used in courses in educational psychology (4, 9, 17, 26), and the academic emphasis of course content (53, 61).

One of the most frequent and persistent criticisms of educational psychology courses, however, has focused on the lack of integration of psychological theory with the actual application of this theory to classroom practice. For example, a number of writers have criticized the course for such reasons as: isolating their work from the practical aspects of the classroom (28), the failure to make the course functional so that students can apply psychological principles to a particular situation (27), and emphasizing the factual aspects of the material (46, 62).

This criticism has recently been summarized by a group of leading educational psychologists as follows:

> College courses in educational psychology as conceived in the past have sometimes fallen short of being a determining influence in the professional preparation of teachers. The major reason for this failure is that we were thinking in terms of college courses rather than of a professional program. As with many college courses, the objectives of the typical educational psychology course were primarily factual. The then current explanations of learning were presented and measurement procedures were taught, but scant attention was given to the problems that students were to face later as classroom teachers. Despite what we knew about the limitations of transfer of training, we often taught as though students would automatically transfer to their own teaching the knowledge they had acquired in the markedly different setting of the college classroom. It is no wonder, then, that there was little relationship between success in college courses in educational psychology and success in classroom teaching. (47)

The criticism of the failure of educational psychology courses to relate theory and practice has lead educational psychologists to search for techniques which might assist in achieving this goal. One of the traditional methods used in teacher training institutions has been classroom observation. There is evidence that educational psychologists have adopted the use of classroom observation as one of the means of relating theory and practice.

HISTORICAL EMPHASIS ON CLASSROOM OBSERVATION IN TEACHER EDUCATION

Classroom observation is perhaps one of the oldest techniques used in the education of teachers. Written reports of observations by prospective teachers date back to 1788 (40).

In 1841 classroom observation was included as part of the program of the first state normal school in the United States (52). Numerous reports of observation programs have been reported in the literature. For example, in 1867 at Westfield, Massachusetts, a school of observation was opened and operated for 13 years (65). At Bridgewater, Massachusetts, the primary grades of the town school had been used for observation by the normal students since 1880 (66). In 1870 the Michigan Board of Education arranged for observation at the Ypsilanti Michigan Normal School (67). One of the most diligent efforts in observation took place at Oswego, New York where in 1861 a model school used exclusively for observation purposes was in operation for a number of years (22).

In 1859 at the First Annual Convention of the American Normal School Association a resolution was adopted which called for the establishment of schools of observation in connection with normal schools (68). In 1926 the American Association of Teachers Colleges (69) adopted a standard of teacher preparation which called for teachers colleges to maintain a training school for purposes of observation, demonstration, and supervised teaching.

In a series of studies from 1900 to 1930 it was shown that professional courses that utilized classroom observation and demonstration had become an increasingly important part of the curriculum. In 1900 these courses constituted one-third of the

professional offerings but, by 1930, they constituted about one-half of the courses (16, 24, 33, 64).

CONTEMPORARY EMPHASIS ON CLASSROOM OBSERVATION IN TEACHER EDUCATION

There is evidence in recent years to suggest that classroom observation is becoming an even more integral part of the professional preparation of teachers. Rather than increasing the number of "observation classes" per se, the trend seems to indicate a closer relationship between observation and professional education courses. For example, Williams (70) in a study of 128 state normal schools, found the most frequent pattern of classroom observation to be in combination with professional courses. In 1948, Flowers (25) also found that in a survey of 242 teacher training institutions over three-fourths included observation experiences with professional courses. In another study of state universities, Michaelis (43) found that 68 per cent of the teacher training divisions required classroom observation prior to, and in addition to, student teaching.

Today, the importance and role of classroom observation in teacher education seem to be expanding. In 1948 the American Association of Teachers Colleges (now the American Association of Colleges for Teacher Education) adopted, among other recommendations, a series of principles governing the development of professional laboratory experiences. These were defined as

"all those contacts with children, youth, and adults (through observation, participation, and teaching) which make a direct contribution to an understanding of individuals and their guidance in the teaching-learning process:" (5). Included among these principles were the following:

> Principle I: The particular contribution of professional laboratory experiences (including student teaching) to the education of teachers is threefold: (1) an opportunity to implement the theory and to check with the student his understanding of the theory in application; (2) a field of activity which, through raising questions and problems helps the student to see his needs for further study; and (3) an opportunity to study with the student his ability to function effectively when guiding actual teaching-learning situations.
>
> Principle II: The nature and extent of professional laboratory experiences should be planned in terms of the abilities and needs of the student and should be an integral part of the total program of guidance.
>
> Principle III: Professional laboratory experiences should provide guided contact with children and youth of differing abilities and maturity levels and of differing socio-economic backgrounds for a period of time sufficient to contribute to functional understanding of human growth and development.
>
> Principle V: Professional laboratory experiences should be cooperatively developed by the student and his advisors. Adequate supervision and guidance should be provided through cooperative efforts of laboratory and college teachers.
>
> Principle VI: Professional laboratory experiences should be integrated with other phases of the student's program. Professional education is the responsibility shared by all members of the faculty, each contributing to the maximum development of the student as individual, as citizen, and as member of the teaching profession. (6)

Five years later Lindsey (3) surveyed current professional literature and doctoral studies, and compared reports from colleges which prepare teachers, in order to ascertain what changes had occured in programs of teacher education with respect to the utilization of direct experiences. She concluded that the evidence clearly indicates:

(a) There has been a significant increase in provisions for professional laboratory experiences throughout the four years of the college program.

(b) A greater number of institutions provide opportunities for prospective teachers to observe and participate in activities in the total school and in the community.

(c) Provision for direct experiences made chiefly through work in educational psychology and methods courses with very limited opportunitites in subject matter courses.

From the foregoing statements it appears that classroom observation is playing a more and more significant role in the "foundation" courses in education; particularly educational psychology.

THE INCREASINGLY IMPORTANT ROLE OF CLASSROOM OBSERVATION IN ATTAINING THE OBJECTIVES OF EDUCATIONAL PSYCHOLOGY COURSES

In 1953 a committee on Educational Psychology sponsored by the National Society of College Teachers of Education (48) published a Guide for Instructors in which they set forth the objectives of educational psychology:

(1) The study of educational psychology should develop the student's interest in people, both children and adults, and help him to understand them.

(2) The study of educational psychology as part of a teacher education program should have a favorable effect on the attitudes, behavior, and psychological understanding of students in both personal and professional relationships.

(3) The study of educational psychology should enable the student to use the body of knowledge that is derived from research studies in this field and that help explain the ways in which learning occurs.

(4) The study of educational psychology should improve the effectiveness of the prospective teacher's ability to learn.

(5) The study of educational psychology should foster the student's appreciation and understanding of research in education.

One method through which these objectives might be attained is classroom observation. This is substantiated further in this volume when methods of instruction are discussed. Here the section, "Learning from the Study of Children," focuses on observational and participatory experiences as fulfilling all the criteria for judging methods of teaching (49):

(1) Does the method promote a clear understanding of cause-and-effect relationships in human behavior, especially with reference to the fundamental conditions of learning?

(2) Does the method equip the student with adequate techniques for the study of individual children and groups of children in educational situations?

(3) Does the method develop attitudes of respect and concern for all the children who may come under the student's influence and guidance?

(4) Does the method help the instructor and the student to identify strengths and weaknesses, accomplishments and failures, and thus provide a sound basis for next steps in learning?

(5) Does the method promote in the student a degree of self-understanding relative to the sources of his attitudes toward children and their education and the possible modification of these attitudes.

(6) Does the method harmonize with the methods recommended to the students?

The report also includes a number of illustrations of innovations in teaching methodology in educational psychology and related courses (50). Of the nine programs discussed in this section, eight of these include observation or participation experiences as an important aspect of the innovation. For example, at Sarah Lawrence College observational studies and case studies are given an important place in the development of theories of learning, which, in turn are applied to typical learning situations.

Other reports from teacher education institutions indicate that the trend to use observation in introductory educational psychology and related courses is increasing (6, 17, 31, 53, 57). Stiles, Barr, Douglass, and Mills (58) summarize the trend in this manner:

> Indication of the increased interest in including first-hand experiences for prospective teachers as part of regular college courses is even more evident in professional education courses . . . . In courses in educational psychology and in child growth and development, provision is made in many colleges for the readings and class discussions to be

> interspersed with visits by the students to schools to observe the activities and reactions of children and youth at different levels of maturity.

From the literature it would appear that in order to help relate theory to practice, classroom observation in many different forms is becoming an integral part of courses in educational psychology. Other than the faith that classroom observation will aid in achieving the objectives of educational psychology courses, what research evidence exists which evaluates the contributions classroom observation has made to the professional preparation of teachers?

THE SURVEY APPROACH IN THE EVALUATION OF OBSERVATION PROGRAMS

By far the greatest proportion of research methods utilized in the evaluation of observation programs can be classified under the heading of "surveys," "questionnaires," or "opinionnaires." Thus, the primary basis for the continued use of observation programs in teacher education has been based primarily on subjective data.

The most frequent procedure in using the survey method is to expose a group of students to an observation situation and then to ask them how they felt about this experience. For example, one of the earlier studies to use this procedure was as part of a course in observation and participation at Ohio

University (42). In this survey, Myers presented a series of eight multiple-choice and essay questions to a group of 445 elementary education students who were taking or had taken the course, "Observation and Participation." In the report, the replies were summarized and examples of some of the responses to the essay questions were given. The majority of the students felt that the course in observation and participation helped them understand teaching problems in other courses they were taking.

In an observation-participation program at North Texas State College, 49 students volunteered to observe and participate in elementary classrooms in a first term sophomore course in elementary education (30). During a six week period the students worked with the pupils and teachers in a variety of 17 different experiences. An opinionnaire on the value of the experience was administered to the students and individual reactions were recorded. Again, the subjective statements were extremely favorable toward the experience.

One of the most extensive voluntary programs of observation and participation began in 1938 and is still in operation at the College of Education of Ohio State University (11). Termed, "The September Field Experience," students voluntarily work in public schools during the first two or three weeks in September, prior to the opening of the University. The students

serve as non-paid staff assistants in return for the opportunity to observe a school open and organize for the year's work. During September, 1950, nearly 400 students participated in over 200 schools in ten states. Subjective written reports and questionnaires have repeatedly shown favorable responses to the program.

At the University of Wisconsin, a questionnaire used with 1,038 students in the College of Education who were taking or who had taken education courses showed that students endorsed most highly those courses in education which emphasized methods of teaching and which provided for laboratory experiences in which observation and participation were included (56).

In another recent report on reactions to an observation program in a course on principles of secondary education in which students observed two hours a week for a semester, it was found that 90 per cent of the students ranked the observation experiences as the most valuable part of the course (14).

This same type of evaluative method, together with the extremely favorable ratings of such experiences, have been repeated in a number of similar studies (12, 13, 23, 34, 51, 55, 60). While no specific survey studies of observation programs in relation to educational psychology courses per se were located in the literature, with the exception of an unpublished

report in which a one-day, observation field trip was ranked by students as the outstanding feature of an introductory educational psychology course (32), there is no reason to believe that the overwhelmingly positive reactions to observational experiences would not also be found in such courses.

THE NEED FOR EXPERIMENTAL RESEARCH IN EVALUATING THE CONTRIBUTIONS OF CLASSROOM OBSERVATION

As with many techniques used in teacher education programs, the majority of the evaluative research on classroom observation has been of the survey type. The lack of experimental research in many areas of teacher education has been pointed out by several educational researchers. For example, Stinnett and Clarke (59) state that:

> In spite of increasing criticism of the nation's procedures for the education of teachers, particularly in relation to the role which teacher education plays in determining the character of curriculum and method in the elementary and secondary schools, there has been remarkably little basic research in teacher education during the past decade.

A number of professional education organizations have made lists of needed experimental research in the area of teacher education. Included in these are usually several references to the need for experimental studies of classroom observation programs (1, 2, 4, 8). Such research topics as the scheduling of observations in relation to student

teaching, the length of observations, and the values of observation in relation to professional education courses have been cited.

Individual writers also have emphasized the need for research in this area (21, 71). Andrews (10), for example, in discussing experimental programs of laboratory experiences, concludes his article with the following observation:

> In an area as important as the laboratory aspects of teacher education, it is a tragic fact that significant research findings are practically nonexistent. Indeed, the term "experimental programs" must be used very loosely in this connection. The pioneering has been done, and innovations are springing up everywhere, but the job of scientific evaluation remains relatively untouched.

In 1959 Lindsey, Mauth, and Grotberg (35) pointed out that:

> Specific questions on selection and organization of (observation) experiences and the guidance of learning must be answered through experimentation with alternative procedures of programs, any one of which may have potential for helping future teachers develop necessary abilities. Such experimentation with alternatives is common in teacher education. What is lacking is systematic gathering and validation of data on results of experimentation.

Thus, there appears to be a prevailing interest and expressed concern for the need for research in this area. The question might be raised as to why, with all the recognized need for research in this area, there has been practically no attempt to do experimental research.

SOME REASONS FOR THE LACK OF RESEARCH IN THE EXPERIMENTAL EVALUATION OF PROGRAMS IN TEACHER EDUCATION

A number of possible reasons have been expressed for the lack of systematic research in teacher education. Among these would be included the lack of trained personnel in research methodology in teacher education institutions. Another important reason, up to very recently at least, has been the lack of adequate computing facilities to allow an individual to attempt realistically to undertake the types of experimental research which need investigation.

In the article, "Neglected Areas in Educational Research," Carroll (19) points out some additional factors which account for the lack of research:

> You will see that what I call "neglected areas" in educational research cannot be described as "off-beat" or highly original topics which nobody appears to have thought of, but problems so persistent and fundamental that everybody is at least subconsciously aware of them.
>
> Then why have they been neglected? They have not been completely neglected, of course; there have been numerous studies which could be called relevant to these areas. I call them neglected chiefly because educational research workers have thus far not been able to mobilize the resources and talent required to provide satisfactorily complete answers. But they can also be called "neglected" because certain habits of thinking and research procedure have deflected investigators from making direct assults on them.

More relevant to the particular problem of experimental evaluation of classroom observation, however, are the inherent

difficulties in experimentally studying the effectiveness of any type of training program. Some of the difficulties inherent in the evaluation of the professional education of teachers are presented in the form of questions by Lindsey, Mauth, and Grotberg (36) as follows:

> 1. What is the criterion against which to evaluate (or judge) the effectiveness of the professional education programs?
>
> 2. What kinds of evidence should be admissible to support conclusions on the quality of teacher behavior?
>
> 3. How can a cause-effect relationship be established between certain experiences in the preservice professional education program and the student's behavior in the classroom with children or youth, with his peers in the school building and in the profession, and in his community living?
>
> 4. What kinds of provisions must be made in staff time and preparation to permit the needed emphasis on research and experimentation?

As a result of the many inherent difficulties involved in doing research in the area of evaluation of teacher education programs; of untrained individuals in the area of research methodology; and the lack of facilities, the experimental evaluation of such programs as classroom observation has practically been non-existent. There are, however, a few recent studies which indicate that the situation may be changing.

EXPERIMENTAL RESEARCH IN THE EVALUATION OF OBSERVATION PROGRAMS

The contrast between the number of survey and experimental studies in the evaluation of observation programs is striking.

In fact, only two experimental studies were located which had some bearing on classroom observation.

One of these was a study conducted by Cox (20) in which he attempted to determine the attitudinal changes of teaching candidates that resulted from laboratory experiences when these experiences were a feature of a pre-student teaching course in human growth and development. The specific problem of the study was as follows: "to determine the direction and extent of changes of attitude toward children during the period of experimentation as measured by the Minnesota Teacher Attitude Inventory; and to ascertain the relationship between these objectively measured attitudes and empirically measured appraisals as determined by the prospective teachers."

One hundred twenty-two students enrolled in the course were randomly placed in an experimental group, in which they were assigned to children and youth organizations of the community, and to a control group in which they merely attended class. The Minnesota Teacher Attitude Inventory was administered to both groups before and after the experiences. In addition, a subjective measure of attitudes toward the community activities was obtained for the experimental group.

Cox's findings included:

> 1. The gain from pre-test to post-test scores on the MTAI was significant at the .01 level of confidence for all groups.

2. The experimental groups did not show a statistically significant gain over corresponding control groups.

3. The subjective measure (written account of how they felt about experience) of the experimental groups indicated that there was considerable personal value in these experiences.

One of the interesting aspects of this study is the discrepancy between the lack of measured change in student's attitudes and their favorable subjective impressions.

Similar findings were revealed in a recent doctoral dissertation (54) where an attempt was made to determine which of three different pre-student teaching experiences best prepared the female elementary student teacher for her full term of student teaching. During fall term, applicants for winter term student teaching were randomly assigned to three groups. The first was a reading group in which students did independent reading, and the second an observation group in which they observed in an elementary classroom for three hours a week for a term. Students in the third group were enrolled in education courses in the College of Education.

The Minnesota Teacher Attitude Inventory and The Purdue Teachers Examination: How I Teach, were administered to all students at the beginning of the program; during the first week of student teaching; and during the final week of student teaching. In addition, each student in the three groups was interviewed twice during the fall term of 1959 and was asked to submit a written evaluation of her experiences.

The results indicate no significant differences in mean scores on the MTAI among any of the three groups on any one of the three occasions when it was administered. No significant differences were found between the three groups on mean scores on the Purdue Teachers Examination on the last two administrations of the test.

The subjective written reports and interviews, however, indicated that all members of the observation group felt that they were better prepared for student teaching than were students in the other two groups. In addition, 28 of the reading group students expressed the opinion that they were not as well prepared as the students in the classroom observation group.

Thus, in relation to an observation experience, there again appears to be a difference between the opinions of students and their measured attitudes and analyses of teaching practices.

One of the most significant and extensive beginnings in the realm of stimulating experimental research in the evaluation of observation programs is reported in a recent book by Lindsey, Mauth, and Grotberg (35). The report includes the procedures of a group of professors in education and research from three colleges and universities (Ball State Teachers College; Northern Illinois University; and Teachers College, Columbia University).

The purpose of this study is stated by the authors as follows (38):

> It is proposed that a selected group of institutions actively engaged in the preparation of teachers combine their efforts in a cooperative action research program to investigate the essential characteristics of effective preservice undergraduate education of teachers.

The general method of the study followed the steps used in action research: (a) defining problems faced in a specific situation; (b) setting up testable hypotheses relating to the solution of these problems; (c) determining procedures for testing hypotheses; (d) gathering data as a result of testing procedures; (e) analyzing data for testing hypotheses; (f) drawing conclusions relating to improved ways of meeting the defined problems; and (g) taking action on the basis of the conclusions drawn.

While no specific experimental research findings are presented, a number of very significant contributions are made which, in a sense, open the way for more experimental studies. This has been accomplished by the study and identification of some basic and central variables involved in the evaluation of laboratory experiences. For example, as a result of the study a number of instruments were developed which may measure some of the objectives of laboratory experiences. These include an information test on human growth and development; a situation test for measuring attitudes; an instrument for measuring

understanding and the use of principles; an instrument to describe student behavior in real situations; an instrument to describe a laboratory experience; and a guide for interviewing students.

The value of such a program in the area of stimulating research activities is reported by all three of the institutions concerned. In one case an actual research design was developed:

> As a direct outgrowth of the project and in recognition of continued need for working in the area of the relationship of laboratory experiences to courses in growth and development, two experiments are being designed for next year. They will be conducted by members of the research team and organized to get at the variable of laboratory experiences. We want to know what laboratory experiences contribute to the specific goals of the course as agreed on by the project members. An instructor in the elementary and one in the secondary sequence will each have two sections of the respective course. In one section, laboratory experiences will be part of the course as before. In the other, laboratory experiences will be eliminated until the last month of the class. Instruments developed by the research team will be used, with improvements that will be made this semester, before and after laboratory experiences. We hope to determine the value of laboratory experiences as suggested by the project. (39)

COMMENTS ON SURVEY AND EXPERIMENTAL TYPE RESEARCH

While surveys, questionnaires, and opinionnaires serve useful functions in noting trends, determining present day practices, making administrative decisions, etc., they do have definite limitations. Travers (63) discusses some of these as follows:

> Surveys are conducted to establish the nature of existing conditions . . . The survey method represents research at a primitive level. It builds a body of fact that is usually of only local significance. The facts thus collected may contribute to the solution of immediate problems, but rarely do they develop a body of knowledge that can be used in solving future problems. Thus the technique tends to be a one-shot method.

Another major disadvantage of the survey method is that it does not allow one to determine any cause and effect relationships. In addition, there is no control of the extraneous variables which may tend to influence results. For example, in a number of the survey reports of observation, the students who volunteered for the program were those who did the observations. The fact that they volunteered may have been related to their favorable impressions.

Experimental research, on the other hand, has certain advantages over the survey method. Primarily it allows the experimenter to make observations from which attributions of causality can with some degree be made. Woodworth and Schlosberg (73) point out some of the characteristics which make experimental research so effective:

> An experimenter tries to control the conditions under which an event occurs. If he succeeds in doing so, he has certain advantages over an observer who simply watches the course of events without exercising any control.
>
> 1. The experimenter can make the event occur when he wishes. So he can be fully prepared for accurate observation.

2. He can repeat his observation under the same conditions for verification; and he can describe his conditions and enable other experimenters to duplicate them and make an independent check on his results.

3. He can vary the conditions systematically and note the (concomitant) variation in results.

Modern experimental methodology and statistical theory allow one to study and analyze a number of different types of variables at one time. There are certain requirements, however, which must be met in order to take advantage of these advances in methodology and theory. Some of these are:

(a) Randomization of subjects to the particular treatments involved in the study.

(b) Control of conditions of the experiment and variables (usually by randomization).

(c) Replication of the treatments, where possible, in order to get a more accurate measure of the treatment effects.

As can be seen, none of the above conditions are found in the survey type of research. Thus, the findings of this type of research are limited, and they usually cannot take advantage of the recently developed statistical methods which can aid an experimenter in answering a number of relatively complex questions.

The present study was designed to take advantage of the power of experimental research through the use of the principles of randomization, replication, and control.

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CHAPTER II

PURPOSE OF THE STUDY

Partially as a result of the criticism that courses in educational psychology fail to relate theory and practice, there has been a trend toward attempting to develop such a relationship through incorporating classroom observation in the work of these courses. There is, however, relatively little experimental evidence to indicate whether classroom observation does, in fact, aid in relating educational psychological theory to practice. From this context the need for the present study became evident.

STATEMENT OF THE PROBLEM

It was the problem of this study, in relation to a six-credit undergraduate educational psychology course, to determine the effects of a series of classroom observations as compared to the effects of a simulated teaching experience on students': (a) course grades, (b) final examination scores, (c) attitudes about teacher-pupil relationships, (d) career plans, (e) ability to apply psychological principles, and (f) course satisfaction.

DEFINITION OF TERMS

The following terms are used sufficiently often throughout the study to demand a brief explanation:

(a) Classroom Observation Group. One-hundred forty-five students who regularly observed in a public school classroom as part of their required course work.

(b) Observation Schools. The schools in which students in the Classroom Observation Group observed.

(c) Observation Teachers. Teachers who taught in the classrooms in which the students in the Classroom Observation Group observed.

(d) Simulated Teaching Group. One-hundred thirty-five students who taught a short lesson to other members of the class as part of their required course work.

(e) Simulated Teaching Teacher. The student who was "teaching" a lesson to a group of college classmates.

(f) Simulated Teaching Pupil. College classmates who were taking the part of "pupils" in the simulated teaching situation.

RESEARCH HYPOTHESES

It is the purpose of this study to test the following seven hypotheses through a research design which incorporates the principles of randomization, control, and replication:

1. Students in the Classroom Observation Group will perform better in terms of course grades than students in the Simulated Teaching Group.
2. Students in the Classroom Observation Group will perform higher in terms of the final examination scores than students in the Simulated Teaching Group.
3. Students in the Classroom Observation Group will demonstrate more favorable attitudes toward teacher-pupil

relations in classroom than students in the Simulated Teaching Group.

4. Students in the Classroom Observation Group will have more positive teaching career-plans at the end of the term than students in the Simulated Teaching Group.
5. Students in the Classroom Observation Group will change their career plans more than those in the Simulated Teaching Group.
6. Students in the Classroom Observation Group will be better able to apply psychological principles than students in the Simulated Teaching Group.
7. Students in the Classroom Observation Group will be more satisfied with the different aspects of the course than students in the Simulated Teaching Group.

DESCRIPTION OF INDEPENDENT VARIABLES

In order to test the above hypotheses it is necessary to use certain instruments as independent variables. These include the following: course grades, final examination, attitudes about teacher-pupil relations in the classroom, career-plans, the ability to apply psychological principles, and course satisfaction.

Course Grades

Contributions to the final course grade come from two sources: two-thirds of the grade is made up of grades on quizzes, written assignments, and hour examinations given during the term; one-third of the grade is made up of scores on the final examination.

Final Examination

The final examination is given every term to all students enrolled in the course, there being often as many as 600. The test itself consists of 100 multiple choice questions which are included on the basis of an elaborate categorization of items in terms of various objectives and categories taken from the Taxonomy of Educational Objectives (2). A large pool of items are developed, tried out, analyzed, and either retained or withdrawn. In every administration of the examination an attempt is made to introduce new items and items that have not been included the previous term.

Table 1 presents a summary of the total score statistics for the final examination administered at the end of the winter term of 1961.

Table 1. Total Score Statistics for Final Examination

Statistic	Value
Number Taking	441
Number of items	100
Range of Scores	29-90
Median	66.20
Mean	65.36
Standard Deviation	10.46
Reliability (KR-20)	.82
Mean Difficulty Level	.65
Mean Discrimination Index	.35

Attitudes Regarding Teacher-Pupil Relationships

Attitudes regarding teacher-pupil relationship were measured by the Minnesota Teacher Attitude Inventory (MTAI). The MTAI was developed as an attitude scale which predicts the type of teacher-pupil relations teachers will maintain in the classroom. Indirectly it attempts to measure how well satisfied a prospective teacher will be with teaching as a vocation. The inventory consists of 150 specific attitude statements which the student categorizes in terms of whether he strongly agrees, is undecided or uncertain, disagrees, or strongly disagrees. The possible range of scores on the MTAI is from plus 150 to minus 150. Each response scored "right"

has a value of plus one, and each response scored "wrong" has a value of minus one. A more detailed discussion of the rationale, scoring, administration, etc. are to be found in the manual (3).

In the development of the inventory, the authors devised 756 items from five areas of socio-educational literature about children:

(1) Moral status of children in the opinion of adults;
(2) Discipline;
(3) Principles of child development and behavior related to ability, achievement, learning, motivation, and personality development;
(4) Principles of education related to philosophy, curriculum, and administration;
(5) Personal reactions of the teacher, likes and dislikes, sources or irritation, etc. (3)

Validity is presented in terms of the relationship between MTAI scores and principals', observers', and pupils' ratings of teachers on the dimensions of the test, with the correlations ranging from .45 to .49. When the three types of ratings are combined, thus making a more reliable criterion, correlations with test scores in three studies are raised to .60, .63 and .46.

Split half reliability is .93 and test-retest reliabilities during the early professional courses, and during the first months of teaching experience are .70.

Cronbach reviews the test and makes the following comments (4):

> Test development of exceptional quality lies behind this inventory. Publication was preceded by patient and careful research which is well reported in the manual. However, the research is not at this point adequate to support wide practical use of the test, but the research program is continuing.

Recent studies, however, have generally demonstrated some significant relationships between the test scores and pupil attitudes toward their teacher (5), success in student teaching (7), and leadership behavior of teaching candidates (8).

Career Plans

Career Plans were measured by the Career Plans Questionnaire (CPQ) (Appendix A) developed by Krumboltz (6). It is an attempt to measure an individual's motivation to teach through presenting him with a series of situations which ask him to designate how he would react.

A number of different types of considerations in choosing a career are included: personality considerations, ability considerations, length of time for training, feeling toward teaching, financial considerations, need for additional education in order to keep the job, respect of the teaching profession by others, and marital considerations. Thus, the test is designed to represent a rather thorough measure of an individual's desire to want to teach and remain in teaching under varying situations.

The actual test consists of 10 multiple choice items which are alternately keyed in order to reduce the probability of response set. Each item is scored from 0 to 4 with a possible range of scores from 0 to 40; a high score is indicative of a high motivation to teach.

Validity of the instrument is primarily face validity at present.

Measures of reliability include two test-retest correlation coefficients (10 week intervals) of .70 (reported by the author) and .60 in the present study. These two relatively high correlations would tend to indicate the stability of career plans over such a period of time.

The Ability to Apply Psychological Principles

The Redwood School Test (RST)[1] was recently developed in order to fill a needed gap in the evaluation of the ability to apply psychological principles in beginning educational psychology courses (1). The RST was designed to cover the total area of educational psychology as defined by the textbook, Psychology and the New Education, by S. L. Pressey.

The test includes information about an eight-grade, one-room school and the surrounding community. A detailed

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[1]The Redwood School Test has been deposited with the American Documentation Institute. Order Document No. 6251, remitting $2.50 for microfilm or $2.50 for photocopies.

description of five students in the class is presented including information as to age, grade, sex, ability, and social-emotional problems. A series of behavioral situations are included between the teacher and the pupils. Following each situation are diagnostic and remedial questions which the respondent is to answer. A total of 117 items are to be answered by either agreeing or disagreeing with the statement in terms of whether it illustrates the proper diagnosis or remedial action.

Due to the recency of the instrument no direct validational data is reported. However, the authors did include the test in a factor analytic study of thirty evaluational techniques used in educational psychology courses. In this study a factor which the authors labled "Applicational Ability" did emerge which was dominated by the case study tests used.

A split-half reliability coefficient (corrected by the Spearman-Brown Formula) of .76 was obtained from scores of the 280 students who took the test in the present study.

Course Satisfaction

Course satisfaction was measured by the Course Evaluation Scale (CES) (Appendix B). The CES is an attempt to measure the relative degree of satisfaction or dissatisfaction with various aspects of the course. It includes such areas as feelings about class discussion, the textbook, the lectures, the movies, and evaluation methods used.

Responses to each item range from zero to four, with a high score on the item indicating a higher degree of satisfaction with that particular aspect of the course. The possible range of scores for the CES was from 2 to 54.

Validity on this scale is based on its logical content in terms of including different aspects of the course. No data on reliability is available.

One of the problems in administering such an instrument is the possibility of students faking responses because of fear that their grade will be affected. This problem was partially alleviated by the fact that the students were aware that their instructor grades had already been assigned prior to the day they filled out the CES. In addition, the statement on the first page of the CES attempts to clarify the anonymity process used in summarizing the responses.

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CHAPTER III

SETTING OF THE STUDY

In order to more fully understand the study it is necessary to consider its general setting. This chapter will include a description of the course, the instructors, the physical setting, and a description of the population and sample.

THE COURSE

At Michigan State University, "the Individual and the School" (Education 200) is a six-credit introductory educational psychology course which is required of all teaching candidates for certification, and which is the first professional course taken by these students. Four or more sections of the course are offered during the regular school year and summers. The only prerequisite for the course is sophomore standing.

The Michigan State University Catalog carries the following description of the course:

> Major psychological factors in the school learning-teaching situation; concepts in human development related to problems in the school situation; teacher's role in motivation, conceptual learning, problem solving, and the development of emotional behavior, attitudes and values; learning of skills; retention and transfer; and measurement of student abilities and achievement. (5)

The major objectives of this course are presented in the instructors' guide:

> The central theme of ED 200 is the study of the learning process in the school setting and the work of the teacher in his major task of guiding learning . . . . In the area of attitudes, it is hoped that the course will help to develop sensitivity to the needs and individual differences of learners in the classroom situation, and that, in addition, students of ED 200 will become more committed to teaching as a profession. With regard to skills, it is hoped that ED 200 will provide an introduction to some of the "know-how" needed in guiding the learning of others. (2)

THE TWO SECTIONS USED IN THE PRESENT STUDY

During the winter term of 1961 a total of five different sections of Education 200 were offered. Sections Two (which met from 10 to 12 a.m. on Monday, Wednesday, and Friday) and Three (which met from 1 to 3 p.m. on Monday, Wednesday, and Friday) were used in conducting the present study.

In addition to the objectives for the course in general, a series of specific objectives are formulated by each individual section instructor. In Sections Two and Three, these were included as part of the course outline presented to every student enrolled in the two sections during the winter term of 1961:

> The purpose of this course is to help you change your behavior in ways which will make you a better teacher. To accomplish that end you will have varied activities to acquaint you with what is known about human growth

and learning and how such knowledge affects your activities as a teacher. This course will be successful in the eyes of your instructors if your future teaching is characterized by such representative behaviors as the following:

1. You can state a clear and consistent set of purposes (ED 301 will help you to clarify these more later), and you can specify which concrete and observable pupil behaviors are indications of whether your purposes are being achieved.

2. You are able to devise a series of learning experiences which will enable each pupil to grow in the direction specified by your objectives. These learning experiences will be designed so that:

   a. You are aware of the readiness of your pupils and plan activities within the scope of their present abilities building readiness for more advanced activities.

   b. You are aware of the wide range of individual differences among pupils of the same age and thus you plan activities so that each pupil may advance at his own rate.

   c. You know the dangers of continual failure so you plan a variety of activities such that each pupil has a number of successful experiences as well as a chance to determine his own limits.

   d. You know that each learning experience may contribute to the achievement of a number of different objectives and thus you insure that each activity does not defeat some purposes while achieving others.

   e. You are conscious of the impact of your own behavior on the learning of your pupils so you are constantly and objectively searching for new and better ways to achieve your purposes.

3. You can devise and evaluate procedures for determining the extent to which each pupil has achieved each purpose. (3)

The two sections used in this study were organized so that the first hour was devoted to large group activities such as panel discussions, "buzz sessions," demonstrations, and lectures. These were held in the Kiva, a large circular shaped auditorium with students seated at tables. The second hour was devoted to small group discussions conducted by advanced graduate students in small classrooms. Specifically, the two main purposes of the second hour discussion sections were:

1. To give the student an opportunity to integrate some of the ideas they have received from the readings, lectures, observations, demonstrations, and movies.
2. To give the student a chance to investigate some activities and techniques in which teachers need skill. (4)

During the winter term of 1961 there was one assigned text for the course (1) and a series of recommended readings were included in the course outline.

THE INSTRUCTORS

One associate and assistant professor in the Psychological Foundations Group of the College of Education were responsible for Sections Two and Three of Education 200 during the winter term of 1961. The associate professor conducted the first hour activities for the first half of the term (5 weeks) while the assistant professor did so during the second half of the term. Their responsibilities included planning the second hour

activities with the graduate instructors, preparing the major evaluation instruments, and visiting the second hour discussion sections.

Each of five doctoral candidates were assigned one discussion group in Section Two and another in Section Three. Three of these instructors were working toward Ph. D. degrees in educational psychology, while the remaining two were working on Ph. D. degrees in counseling and guidance with minors in educational psychology. All of the instructors had both previous college or public school teaching experience and at least one term of previous teaching experience with this particular course.

Coordination Among Instructors

Weekly planning meetings were held throughout the ten week period in order to coordinate and standardize certain procedures within each of the discussion sections. While there were individual variations in the discussion sections in terms of method of leading the discussions, techniques for illiciting discussion, and emphasis on particular aspects of the topic under discussion, the major variables involved in the study were controlled as much as possible in each of the sections. For example, all written assignments were assigned on the same day and were due on the same dates; all hour examinations were given on the same

date; the common final examination was administered on the same date; all the major criterion instruments were given on the same day for the morning and afternoon sections; and the topics for daily discussion were focused on one general area.

THE STUDENTS

The Population

The population for this study consisted of all students who might enroll in Education 200 at Michigan State University under the general conditions which prevailed in the course during the winter term of 1961.

The Sample

The sample used in the present study included all the students who elected to take Education 200 during the winter term of 1961. This group of students was considered to be a random sample from a hypothetical larger population of all students who might take Education 200 at Michigan State University under the general conditions which prevailed in the course during the winter term of 1961.

Characteristics of the Sample

The sample consisted of 95 males and 185 females from eight different colleges of the University. Most of the students were

freshmen and sophomores, but a few were upperclassmen and graduate students.

The distribution of male and female students can be seen in Table 2.

Table 2. Number of Males and Females by Section

Sex	Section		Total
	2 (10-12 AM)	3 (1-3 PM)	
Males	59	36	95
Females	116	69	185
Total	175	105	280

A distribution of students by college and section is presented in Table 3. Study of this table indicates that of the total number of students enrolled in both sections, 36 per cent were enrolled in the College of Education, 37 per cent were enrolled in the College of Science and Arts, and 27 per cent were from other colleges.

Table 3. Number of Students in Each College by Section

College	Section		Total
	2 (10-12 AM)	3 (1-3 PM)	
Agriculture	5	4	9
Business and Public Service	3	5	8
Home Economics	13	6	19
Science and Arts	62	42	104
Veterinary Medicine	1	0	1
Education	69	32	101
Communication Arts	9	2	11
Engineering	1	1	2
Non-Preference	12	13	25
Total	175	105	280

Table 4 shows the number of students in each section by college class. As can be seen, one per cent were freshmen, sixty per cent were sophomores, thirty per cent were juniors, and nine per cent were seniors or graduate students.

Table 4. Number of Students in Each Class by Section

Class	Section		Total
	2 (10-12 AM)	3 (1-3 PM)	
Freshman	1	3	4
Sophomores	105	64	169
Juniors	54	30	84
Seniors	10	7	17
Graduates	5	1	6
Total	175	105	280

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CHAPTER IV

METHOD AND PROCEDURE

This chapter will include a discussion of the methods and procedures used in the present study. Specifically, it will present the methods and procedures utilized with the Classroom Observation and Simulated Teaching Groups as independent groups. It will also include a discussion of methods and procedures followed by both groups as a function of their being in the same course.

METHOD AND PROCEDURES USED WITH THE CLASSROOM OBSERVATION GROUP

Selection of Observation Schools

During December of 1960 observation arrangements were made with the superintendents of the eight Central Michigan chool istricts which took part in the observational program. The schools were selected on the basis of the following criteria: (a) no established student teaching program with Michigan State University currently in effect, (b) accessibility to Michigan State University, (c) willingness of the superintendents, principals, and teachers to cooperate in such a program.

Table 7 presents a list of the school districts in which students observed, together with the enrollment figures for the elementary and secondary schools in these districts.

Table 7. School Populations of Districts Within Which Students' Observed

Name of School District	Enrollment	
	Elementary	Secondary
Diamondale	339	184
East Lansing	2,435	1,660
Holt	1,407	734
Laingsburg	377	309
Potterville	394	240
Sunfield	203	255
Williamston	673	486
Waverly	2,206	

*figures based on 1960-61 Enrollments

In all cases it was recommended to the superintendents that participation in the program should be voluntary on the part of the teachers and that, if possible, only one student

should observe in a particular classroom at one time. In addition, letters explaining the nature of the classroom observations were given to each of the Observation Teachers (Appendix C).

Assignment of Students to Observation Schools and Classrooms

On the first day of class, students in the Classroom Observation Group were asked to complete an Observation Schedule Card (Appendix D) on which they designated by grade and, if applicable, by subject area their first, second, and third preference for observation assignment. In addition, they also listed their first, second, and third choices for blocks of time (two to four hours) during which they would be available for observation.

On the basis of each student's choice, an observation assignment was made to one of the eight Observation Schools in accordance with: (a) availability of transportation, (b) availability of a class in the level or subject area designated, (c) the amount of time each student had available. At the secondary level, the students generally were assigned directly to a particular classroom and Observation Teacher. At the elementary level, assignments were made by the principal during the first visit to the school.

Table 8 summarizes the assignment of students in terms of numbers observing in each of the eight school districts.

Table 8. Number of Students Observing in Each School District

School	Number of Students Observing by Level			
	Elem.	J. High	High	Total
Diamondale	7	2	4	13
East Lansing	1	1	3	5
Holt	11	15	16	42
Laingsburg	6	2	2	10
Potterville	2	2	9	13
Sunfield	4	0	6	10
Williamston	14	9	11	34
Waverly	18	0	0	18
Total	63	31	51	145

Transportation, Attendance, and Procedure at Observation Schools

The College of Education at Michigan State University provided free limousine and bus transportation to the Observation Schools for the eight-week period. On each of the bus trips a student was appointed to take attendance. A written record of attendance was obtained for each observation trip and turned into the experimenter. The mean number of observations for the entire group was 6.5.

Prior to the first visit all students in the Observation Group were given a sheet with suggestions for observing in schools (Appendix E). At the first visit to the school the superintendent or principal met the students and presented a

brief orientation to the school and community. They were then introduced to their respective Observation Teachers to whom they reported directly on future observations.

METHOD AND PROCEDURES USED WITH THE SIMULATED TEACHING GROUP

Since this study was primarily concerned with classroom observation as a technique used in educational psychology courses, it might have been desirable to have a control group in which students had no additional learning experiences besides the large and small group activities and assignments. There were, however, a number of ethical and practical considerations which led to the decision to use simulated teaching as an additional experience for the students not involved in the classroom observation program.

Considerations Leading to the Use of Simulated Teaching

The decision to provide those students not in the observation program with a simulated teaching experience was based on the following considerations:

(a) It was not ethically justifiable to allow 135 students to be deprived of some extra-class experiences merely for the sake of research manipulations. Since these students were future teachers, the present investigator and the professors

in charge of the course felt a responsibility to see to it that all students enrolled in the course would have some opportunity to participate in learning activities which might aid in their understanding of psychological principles and growth as future teachers.

(b) Since students were generally aware that not all the sections of Education 200 were involved in weekly classroom observation (which required from two to four hours every week in addition to the regular six hours of lecture and discussion), it seemed obligatory to see to it that both groups be involved in activities outside of class to control the amount of time devoted to the class under both treatments.

(c) A method was sought which was as different from the classroom observation situation as possible and yet which would allow some coordination and control in terms of written assignments. In addition, a plan was needed which allowed for the inclusion of the major areas of educational psychology that were to be studied in the course.

(d) Consideration was also given to a combination of methods previously used so there could be some degree of assurance that the students not observing would have, in fact, a worthwhile learning experience. The evolvement of the simulated teaching situation actually grew out of two methods which previously had been used in this course. The first was "The Term Project" in

which students presented a series of papers on a particular subject area as if they were preparing to teach this to a classroom. That is, they would consider what their objectives were in behavioral terms, how they would take account of individual differences, how they would utilize psychological principles of skill and concept learning, how they would insure adequate transfer, and how they would evaluate whether they had achieved their original objectives.

The second method from which the simulated teaching envolved was a technique utilized by two of the instructors during previous terms. Basically, it involved having a student teach a concept or skill to the remainder of the discussion section, after which the class discussed what psychological principles had or had not been employed effectively. Student reactions to this experience were rated high on course evaluation forms in terms of the experience "bringing to life" psychological principles.

(3) A method was sought which also would be relatively easy for instructors in educational psychology courses to organize and finance. That is, an experience was needed which would not entail all the coordination of arranging for schools and scheduling student observation periods and which would not entail the relatively high cost of bus and limousine service.

Simulated Teaching Procedure

Students in the Simulated Teaching Group were organized by section instructors into groups of from four to six members each. An attempt was made to make these groups homogeneous with respect to subject area or grade level of the lessons to be presented. That is, students in the early and late elementary areas were in separate groups; while students in the social sciences and physical sciences were in separate groups. This arrangement was not completely possible within all the groups due to the scarcity of students in certain areas such as special education. The number of students in each section was not exactly the same.

Each group was assigned a particular room in the College of Education Building in which they were to meet for their presentations. In addition, certain dates and hours outside of the regular class hours were assigned for each group meeting. Each instructor kept a record of these assigned dates and times and made it clear that he would visit some of these sections personally. All the instructors visited at least one of these group simulated teaching sessions while some visited as many as three and four.

The procedure at one of these simulated teaching sessions was as follows:

(a) A brief introduction by the Simulated Teaching Teacher as to the level and subject area which he was pretending to teach.

(b) Presentation of the lesson by the Teacher during which the students portrayed the role of "pupils" of the particular age for which the lesson was being taught. During these sessions students freely raised their hands for questions as they occured, and generally played the role of pupils (even to the point of presenting discipline problems for the teacher to handle).

(c) At the conclusion of the lesson, the "pupils" filled out the Evaluation Check List for Simulated Teaching (Appendix F). The purpose of this check list was to allow "pupils" to evaluate the different aspects of the presentation in terms of some basic psychological principles. These were given to the Simulated Teaching Teacher by the Simulated Teaching Pupils for him or her to study and hand in with the last written assignment. An attempt was made to emphasize the fact that these would not be used for grading purposes by the discussion leaders, but were merely a "feedback" device for the Simulated Teaching Teacher to use.

(d) At many of the simulated teaching sessions, verbal suggestions and comments were also exchanged by the "pupils" and the Simulated Teaching Teacher in terms of asking why a

certain method was utilized or in some cases, how the "pupils" felt while the Teacher was presenting the lesson.

METHODS AND PROCEDURES FOLLOWED BY THE OBSERVATION AND SIMULATED TEACHING GROUPS

With the exception of the classroom observation and simulated teaching experiences the remainder of the course procedures and methods were practically identical for both groups.

Lectures

Students in both groups attended the same large group activities during the first hour of the course. The same activity took place in both the morning and afternoon sections.

Discussion Group Sessions

While there were differences in emphasis among the five instructors, the general plan for the second hour activities was agreed upon by the instructors in the weekly coordination meetings. In general, discussions were developed on the basis of the activity that took place during the first hour.

Assignments

A series of written assignments were developed for both groups (Appendices G and H). These were identical except that

the emphasis in one group was on observational data while in the other the emphasis was on planning and teaching a lesson. These assignments were given on the same day and the due dates were the same for both groups.

Evaluation Instruments

The three one-hour examinations held during the term were given on the same day for all students and were identical for both groups.

Quizzes were not standardized within all sections. However, they were generally administered within the same week to all students and they covered similar text and lecture materials.

The final examination was administered at the same time and was identical for all students.

Grading Procedure

Grading procedures were standardized for all sections. Two-thirds of the grade was contributed by instructors on the basis of quizzes, written assignments, and hour examinations. One-third was contributed by scores on the final examination.

Administration of the Criterion Instruments

All the criterion instruments used in this study were administered within a two day period to all students enrolled in the two sections.

CHAPTER V

EXPERIMENTAL DESIGN

This study was designed to experimentally investigate the effects on students of two different experiences used as part of a six-credit introductory educational psychology course. The two different experiences were classroom observation and simulated teaching. Five instructors took part in the present study, each being randomly assigned to both an observation and a simulated Teaching group.

DESIGN OF THE STUDY

The basic design of the study is a two by five analysis of variance with two methods and five replications. The design of the experiment is presented in Table 5.

Table 5. Summary of the Basic Experimental Design

Method	Instructor				
Classroom Observation	A	B	C	D	E
Simulated Teaching	A	B	C	D	E

Statistical Hypotheses

Six criterion measures are used in the major analysis. Using these measures, the following statistical null hypotheses are to be tested:

1. No differences exist among the mean scores of the criterion instruments attributable to the two different treatments.

2. No differences exist among the mean scores of the criterion instruments attributable to the different instructors.

3. No interaction effect exists between treatments and instructors.

The level of significance for rejecting the statistical null hypotheses is arbitrarily set at the five per cent level.

Statistical Analysis

Analysis of ariance is the basic statistical tool used in this study. Since the individual cells were unequal in size (due to unavoidable late entries and dropouts) and since if subjects had been randomly dropped from each cell (in order to make the cells equal in size) a large number of subjects would have been lost, it was decided to use a method of analysis which involved solving the normal equations to find the least squares estimate of the treatment difference. The formulas

and procedures used are reported in a statistical textbook by Kempthorne (3).

Assumptions Involved. The following assumptions are involved in the use of this method:

(a) The observations should be normally distributed within each cell. This assumption is rarely tested. On the basis of the Norton Study, Linquist says (4):

> In general, the F-distribution seems so insensitive to the form of the distribution of criterion measures that it hardly seems worthwhile to apply any statistical test to the data to detect non-normality, even though such tests are available.

This assumption is not tested in the present study.

(b) Homogeneity of variance between cells. Again, on the basis of the findings of the Norton Study, Linquist says that (5):

> While statistical tests of heterogeneity of variance are available, there will be relatively few situations in which any such test is required.

This assumption is not tested in the present study.

(c) Observations should be randomly selected. Students and instructors were randomly assigned to one of the two treatment groups. For a discussion of the randomization procedure see the section that follows.

RANDOMIZATION PROCEDURE

Random Assignment of Instructors to the Treatments

The five morning and five afternoon sections were randomly assigned to one of the two situations (Classroom Observation

or Simulated Teaching) in the following manner:

(a) Numbers from one to five were randomly assigned to each of the five instructors.

(b) A Table of Random Numbers (1) was entered at random.

(c) One column of numbers was used for the assignment process.

(d) The first three numbers between one and five to appear while reading down the column were assigned a morning Classroom Observation section (thus, an afternoon Simulated Teaching Section) and the remaining two instructors were assigned a morning Simulated Teaching section (thus, an afternoon Classroom Section).

A similar random assignment procedure was used to assign rooms to each of the five instructors.

Random Assignment of Students to Instructors

Students registered for either one of the two sections (10-12 a.m. or 1-3 p.m.) of Education 200 during the regular registration period in the winter term of 1961 (January 3-5). Prior to the first meeting of the class, students in each of the sections were randomly assigned to one of the five instructors in the following manner:

(a) Since the last digits of each instructors' classrooms were all different (rooms 113, 132, 224, 226, and 228) it was decided to use these numbers.

(b) Edwards' Table of Random Numbers (2) was entered at random.

(c) One column of numbers was used for the assignment process.

(d) In reading down the column if a four appeared first, the first student on the class list was assigned to room 224 (which in this case happened to be instructor C who had been randomly assigned a morning classroom observation section); if a three appeared next, the next student on the class list was assigned to room 113 (which in this case happened to be instructor A who had been randomly assigned a morning simulated teaching section), and so on.

(e) An attempt was made to keep each discussion section equal in number, thus when one of the sections was filled with one-fifth of the registered students, it was dropped from the list and the remaining students were assigned to one of the four other discussion sections.

Dropouts and Late Entries

Once a student had been assigned to one of the instructors he could not change to another (with two exceptions, both of whom were students who were repeating the course and desired to be assigned to a new instructor). There are usually a certain number of students who drop the course within a week after the term begins for a variety of reasons such as course or working schedule conflicts. Twenty students dropped the course during the winter term of 1961, a number not considered above average.

An analysis of the dropouts was made in terms of discussion section and instructor. Since the dropouts were equally distributed among instructors and among treatment groups, there is no reason to believe that there is any relationship between treatment effects and the rate of dropouts.

Students who registered late for the course were randomly assigned to one of the five instructors in the same manner as the originally enrolled students.

An attempt was made to assign an equal number of students to each discussion section. Due to the fact that notification slips regarding dropouts are not reported to instructors from the registrars office for two to three weeks after the term begins, it was impossible to keep the discussion sections perfectly equal in size. Table 6 indicated the number of students in each discussion section.

Table 6. Number of Students in Each Discussion Section.

Time	Instructor					Total
	A	B	C	D	E	
AM	33	36	35	36	35	175
PM	21	20	21	22	21	105
Total	54	56	56	58	56	280

REFERENCES

1. Edwards, Allen L. Experimental Design in Psychological Research. New York: Rinehart and Company, 1950, pp. 378-382.

2. _____. Experimental Design in Psychological Research, pp. 378-380.

3. Kempthorne, Oscar. The Design and Analysis of Experiments. New York: John Wiley and Sons, 1952, pp. 79-90.

4. Lindquist, E. F. Design and Analysis of Experiments in Psychology and Education. Boston: Houghton Mifflin Company, 1956, p. 86.

5. _____. Design and Analysis of Experiments in Psychology and Education, p. 86.

CHAPTER VI

ANALYSES OF DATA[1]

This chapter includes an analyses of the data used in testing the seven research hypotheses. In addition, some subsidiary analyses are included relating to some specific reactions of students in the two groups, differences between sexes on the major criterion variables, and the intercorrelations among the major criterion variables.

RESULTS OF MAJOR ANALYSES

On the basis of the major analyses all seven of the following research hypotheses were rejected:

1. Students in the Classroom Observation Group will perform better in terms of course grades than students in the Simulated Teaching Group.
2. Students in the Classroom Observation Group will perform higher in terms of the final examination scores than students in the Simulated Teaching Group.

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[1] Prior to selecting the method for analyzing the results, an analysis was made to determine whether there were any significant differences between students who enrolled for the morning and afternoon sections with respect to their mean scores on the criterion variables. The results of the t Test analyses indicated that there were no significant differences (in all tests the $P > .30$) between morning and afternoon students on the criterion variables. Therefore, the investigator will assume no differences between the two groups, and provision for this analysis will not be incorporated in the analysis of variance method utilized.

3. Students in the Classroom Observation Group will demonstrate more favorable attitudes toward teacher-pupil relationships in the classroom than students in the Simulated Teaching Group.
4. Students in the Classroom Observation Group will have more positive teaching career-plans at the end of the term than students in the Simulated Teaching Group.
5. Students in the Classroom Observation Group will change their career plans more than those in the Simulated Teaching Group.
6. Students in the Classroom Observation Group will be better able to apply psychological principles in a one-room school case study test than students in the Simulated Teaching Group.
7. Students in the Classroom Observation Group will be more satisfied with the different aspects of the course than students in the Simulated Teaching Group.

Rejection of these research hypotheses was based upon tests of the statistical hypotheses.

Testing the Statistical Hypotheses

In order to test six of the seven research hypotheses it is first necessary to test the statistical null hypotheses associated with the method of analysis utilized. The three

statistical null hypotheses to be tested by the method of analysis of variance used are as follows:

1. No differences exist among the mean scores of the criterion instruments attributable to the two different treatments.

2. No differences exist among the mean scores of the criterion instruments attributable to the different instructors.

3. No interaction effect exists between treatments and instructors.

These three statistical null hypotheses are tested separately for each of the six criterion measures. For a complete presentation of the cell means and standard deviations used in the following analyses see Appendix K.

Course Grades. Table 9 indicates the analysis of variance completed for course grades. This analysis shows that there is no significant difference in mean scores on the criterion of course grades attributable to the two different treatments. In addition, there is no difference among the mean scores of this criterion attributable to the different instructors and no interaction between the treatments and instructors.

Thus, on the basis of this analysis we would accept the three Statistical Null Hypotheses. We would, therefore, reject Research Hypothesis One and conclude that there is no significant differences in course grades between the Classroom Observation Group and the Simulated Teaching Group.

Table 9. Analysis of Variance of Observation and Simulated Teaching Groups on Course Grades

Source of Variation	df	Sum of Squares	Mean Square	F	P
Among Treatments	1	29.37	29.37	.60	NS
Between Instructors	4	165.31	41.33	1.06	NS
Interaction	4	197.13	49.28	1.02	NS
Error	270	13,098.99	48.51		
TOTAL	279				

Final Examination. Table 10 presents the analysis for scores on the final examination. On the basis of this analysis we would accept all three Statistical Null Hypotheses and reject the Second Research Hypothesis concluding that there is no significant difference in performance on the Final Examination between the Classroom Observation and the Simulated Teaching Groups.

Table 10. Analysis of Variance of Observation and Simulated Teaching Groups on the Final Examination

Source of Variation	df	Sum of Squares	Mean Square	F	P
Among Treatments	1	79.62	79.62	.88	NS
Between Instructors	4	472.49	118.12	1.14	NS
Interaction	4	362.57	90.64	.88	NS
Error	270	27,877.75	103.25		
TOTAL	279				

Minnesota Teacher Attitude Inventory. The analysis of variance for the MTAI scores appears in Table 11. On the basis of this analysis all three Statistical Null Hypotheses are accepted; therefore, we reject the third Research Hypothesis and conclude that there are no significant differences between the Classroom Observation and Simulated Teaching Groups with respect to MTAI scores.

Table 11. Analysis of Variance of Observation and Simulated Teaching Group on Minnesota Teacher Attitude Inventory

Source of Variation	df	Sum of Squares	Mean Square	F	P
Among Treatments	1	2355.30	2355.30	2.82	<.20
Between Instructors	4	3339.30	834.82	.85	NS
Interaction	4	3335.50	833.88	.85	NS
Error	270	265725.10	984.17		
TOTAL	279				

Career Plans Questionnaire (Post). Table 12 summarizes the analysis with respect to scores on the CPQ (Post). The first and third Statistical Null Hypotheses are accepted. However, the second would be rejected since a significant F ratio was obtained. This would indicate that there is a relationship between which instructor an individual had and his career plans regarding teaching.

With respect to the Fourth Research Hypothesis, then, we would reject it and conclude that there are no significant

differences between students in the Classroom Observation and Simulated Teaching Groups with respect to career plans at the end of the term.

Table 12. Analysis of Variance of Observation and Simulated Teaching Groups on Career Plans Questionnaire (Post)

Source of Variation	df	Sum of Square	Mean Square	F	P
Among Treatments	1	51.64	51.64	1.34	NS
Between Instructors	4	340.91	85.23	2.93	P<.05
Interaction	4	154.21	38.55	1.32	NS
Error	270	7859.08	29.11		
TOTAL	279				

Redwood School Test. Table 13 indicates the analysis of variance for scores on the RST. These results would permit us to again accept the three Statistical Null Hypotheses and conclude, with respect to the Sixth Research Hypothesis that there is no significant difference in the ability to apply psychological principles (as measured by the RST) between the Classroom Observation and the Simulated Teaching Groups.

Table 13. Analysis of Variance of Observation and Simulated Teaching Groups on Redwood School Test

Source of Variation	df	Sum of Squares	Mean Square	F	P
Among Treatments	1	149.20	149.20	1.22	NS
Between Instructors	4	446.69	111.67	1.10	NS
Interaction	4	471.81	122.30	1.21	NS
Error	270	27,310.08	101.15		
TOTAL	279				

Course Evaluation Scale. The analysis for scores on the CES are given in Table 14. On the basis of the results we would accept the first and third Statistical Null Hypotheses and thus conclude, in relation to the Seventh Research Hypothesis, that the Classroom Observation or Simulated Teaching situations have no differential effect with respect to satisfaction with the course.

Statistical Null Hypothesis number two will be rejected on the basis of the analysis; our conclusion is that differences do exist among mean scores on the CES which are attributable to the different instructors. That is, course satisfaction is related to which instructor one has.

Table 14. Analysis of Variance of Observation and Simulated Teaching on Course Evaluation

Source of Variation	df	Sum of Squares	Mean Square	F	P
Among Treatments	1	22.56	22.56	.64	NS
Between Instructors	4	2,239.75	559.94	12.41	$P<.01$
Interaction	4	140.27	35.07	.78	NS
Error	270	12,180.11	45.11		
TOTAL	279				

Changes in Career Plans. In order to test Research Hypothesis Number Five a different statistical procedure was employed. The problem in testing this hypothesis was to determine whether there are any significant differences in

responses of students in the Classroom Observation Group and the Simulated Teaching Group to individual items on the CPQ (Pre) and CPQ (Post).

All students who took both the CPQ (Pre) and CPQ (Post) tests and who answered every item on both tests were included in the analysis. The student's individual pre and post test item responses were compared (separately for the Classroom Observation Group and the Simulated Teaching Group) in terms of three categories: (a) positive change in response (in terms of being more sure of wanting to teach); (b) no change (the individual giving exactly the same item response on the pre-test as on the post-test); (c) negative change (in terms of being less sure of wanting to teach). Table 15 presents a diagram of the two by three Chi Square analysis that was performed for each of the 10 items on the CPQ (Pre) and CPQ (Post). For a complete set of the Chi Square analyses tables see Appendix L.

Table 15. Chi Square Analysis Diagram to Test Changes in Item Responses from the CPQ (Pre) to the CPQ (Post) for Students in the Classroom Observation Group and the Simulated Teaching Group

Category of Change	Classroom Observation Group	Simulated Teaching Group
Positive		
No Change		
Negative		

The results of the Chi Square Analyses are presented in Table 16. The table indicates that there were no significant item changes between the two groups on the Pre and Post test administrations. Thus, Research Hypothesis number five is rejected.

Table 16. Results of Chi Square Analysis to Test Significance of Changes in Individual Responses to CPQ Pre and Post Tests

Item Number	df	x^2	P
1	2	1.72	NS
2	2	.04	NS
3	2	.24	NS
4	2	1.76	NS
5	2	.68	NS
6	2	.76	NS
7	2	2.32	NS
8	2	.92	NS
9	2	.36	NS
10	2	.88	NS

Summary of Major Analyses

On the basis of the foregoing analysis the seven research hypotheses are rejected. The results did, however, indicate that there was a significant relationship between scores on the Course Evaluation Scale and which instructor a student had for the discussion section. In addition, a significant relationship was found between students' scores on the Career Plans Questionnaire (Post) and the particular instructor to which they were assigned.

SUBSIDIARY ANALYSES

This section includes: (a) an analysis of some additional data which provides some information about specific areas to which the two experiences contributed, (b) an analysis of differences between males and females on the major criterion instruments, (c) intercorrelations of the evaluation instruments. While no specific hypotheses were formulated with respect to these data, it was felt that they may offer further insight into the results.

Student Reports of Specific Contributions Made by the Classroom Observations and the Simulated Teaching

In order more specifically to assess contributions of the classroom observation and simulated teaching experiences to such areas as the student's growth as a future teacher, his feelings about teaching as a future career, his understanding of certain concepts and principles, etc., both groups were asked, at the end of the term, to fill out a questionnaire (Appendices I and J). Responses to this questionnaire were analyzed with the purpose of determining if there were significant relationships between the Classroom Observation and Simulated Teaching Groups with respect to responses to the first 15 items. The last part of the questionnaire was not used in the present study since it was included for other purposes.

In order to test whether there was any significant relationship between those students in the two groups in terms of responses to each item, a 2 by 2 chi square analysis was performed in which frequency of responses in categories one through five were combined forming a dichotomy (responses 1 and 2 versus responses 3, 4, 5) with as equal a number of responses in each category as possible (see Appendix M). Table 17 presents the results of the analysis.

Table 17. Chi Square Analysis of Individual Item Responses on the Observation and Simulated Teaching Questionnaire*

Item Number	df	χ^2	P
1.	1	17.27	.001
2.	1	24.48	.001
3.	1	7.65	.01
4.	1	6.50	.05
5.	1	10.00	.01
6.	1	20.22	.001
7.	1	1.81	NS
8.	1	31.02	.001
9.	1	9.39	.01
10.	1	20.26	.001
11.	1	.46	NS
12.	1	2.71	NS
13.	1	4.58	.05
14.	1	.04	NS
15.	1	17.72	.001

*Appendices J and K

Responses of the Classroom Observation Group. More favorable responses were associated with the Classroom Observation Group on items 1, 2, 5, 6, and 8, indicating that the members tended to feel that: (a) in

relation to all other experiences in the course, the observation experience was one of the most beneficial; (b) in terms of their growth as a future teacher, the observation experience contributed greatly or very greatly; (c) in terms of their feelings about teaching as a future career, the observation had affected them quite a lot or very much; (d) classroom observation was helpful or very helpful in terms of understanding the concept of individual differences and the principles involved in classroom discipline.

Responses of the Simulated Teaching Group. In contrast to the responses of the Observation Group, students in the Simulated Teaching Group tended to respond most favorably to items: 4, 9, 10, and 15. Responses to these items seemed to indicate the Simulated Teaching Group felt that: (a) the series of papers were helpful in terms of learning psychological principles; (b) the simulated teaching experience was helpful in their understanding of how to state objectives in behavioral terms.

Summary. The analysis shows that there seems to be generally different impressions of the value of these two experiences. The Classroom Observation Group seemed to be more satisfied with the experience in terms of its contributions to their growth and career plans about teaching,

while those in the Simulated Teaching Group felt that the experience helped them understand specific types of concepts and principles in educational psychology. It is interesting that neither of these reactions was substantiated in the analysis of the criterion instruments.

No specific association could be determined between the two groups with respect to items three and thirteen.

Sex Differences

No specific research hypotheses regarding sex differences were presented as a part of this study since there was no reason to believe that there would be any differences, and since the population of Education 200 students consisted of both males and females. However, since both data and a high speed computer were available to investigate these differences, it was felt that such an investigation might provide useful insights for those who will continue to do studies in this area.

General Sex Differences. Table 18 presents the t Test analysis on the six criterion instruments for all females and males in the study. Analysis of the table shows that there are significant differences between the means achieved by males and females (favoring the females) with respect to course grades.

Table 18. t Test of Significance of Difference of Criterion Instrument Means Between All Females and All Males

Criterion Instruments	Females			Males			t
	N	Mean	SD	N	Mean	SD	
C. Grades	185	29.83	6.97	95	26.63	6.37	3.33**
F. Exam	185	68.17	10.36	95	64.52	9.25	2.56*
MTAI	185	148.67	30.39	95	138.54	32.03	2.24*
CPQ (Post)	185	30.49	5.30	95	30.76	5.81	-.34
RST	185	80.95	7.64	95	76.68	13.15	2.74**
CES	185	35.03	7.07	95	34.60	7.48	.41

* P .05
**P .01

Sex Differences Between the Classroom Observation and Simulated Teaching Groups. Table 19 presents the results of the t Test analysis for males in the Classroom Observation and Simulated Teaching Groups. The results indicate that no significate differences exist in mean scores for these two groups on the six variables.

Table 19. t Test of Significance of Difference of Criterion Instrument Means Between Classroom Observation Males and Simulated Teaching Males

Criterion Instruments	C. O. Males			S. T. Males			t
	N	Mean	SD	N	Mean	SD	
C. Grades	50	26.94	5.79	45	26.43	6.87	.38
F. Exam	50	64.60	8.44	45	64.95	9.40	-.19
MTAI	50	138.48	33.76	45	136.57	32.40	.28
CPQ (Post)	50	30.70	5.21	45	30.95	6.40	-.21
RST	50	74.46	16.42	45	79.52	7.10	-1.98
CES	50	34.10	7.43	45	34.68	7.62	-.37

* P .05
**P .01

The analysis of the significance of mean differences between females in the Classroom Observation and Simulated Teaching Groups is presented in Table 20. Again, the results indicate no significant differences in mean scores between the two groups.

Table 20. t Test of Significance of Difference of Criterion Instrument Means Between Classroom Observation Females and Simulated Teaching Females

Criterion Instruments	C. O. Females			S. T. Females			
	N	Mean	SD	N	Mean	SD	t
C. Grades	95	29.39	7.20	90	30.33	6.68	-.93
F. Exam	95	67.56	9.79	90	68.83	10.88	-.84
MTAI	95	153.06	29.04	90	145.12	29.78	1.84
CPQ (Post)	95	31.04	4.82	90	29.91	5.70	1.35
RST	95	80.97	7.42	90	80.89	7.93	.07
CES	95	35.05	7.61	90	35.14	6.38	-.09

* P .05
**P .01

Sex Differences within the Simulated Teaching Group. Do males or females within the Simulated Teaching Group receive higher mean scores on the criterion instruments? The analysis used in answering this question is presented in Table 21 where we find that Simulated Teaching females score significantly higher than males on Course Grades and the Final Examination.

Table 21. t Test of Significance of Difference of Criterion Instrument Means Between Simulated Teaching Females and Simulated Teaching Males

Criterion Instruments	S. T. Females			S. T. Males			t
	N	Mean	SD	N	Mean	SD	
C. Grades	90	30.33	6.68	45	26.43	6.87	3.11**
F. Exam	90	68.83	10.88	45	64.95	9.40	2.13*
MTAI	90	145.12	29.78	45	136.57	32.40	1.45
CPQ (Post)	90	29.91	5.70	45	30.95	6.40	-.77
RST	90	80.89	7.93	45	79.52	7.10	1.01
CES	90	35.14	6.38	45	34.68	7.62	.35

* P .05
**P .01

Sex Differences within the Classroom Observation Group. How different are mean scores on the criterion instruments obtained by the males and females in the Observation Group? The analysis is presented in Table 22. The results indicate that females performed significantly higher than males with respect to Course Grades, Minnesota Teacher Attitude Inventory scores, and scores on the Redwood School Test.

Table 22. t Test of Significance of Difference of Criterion Instrument Means Between Classroom Observation Females and Classroom Observation Males

Criterion Instruments	C. O. Females			C. O. Males			t
	N.	Mean	SD	N	Mean	SD	
C. Grades	95	29.39	7.20	50	26.94	5.79	2.22*
F. Exam	95	67.56	9.79	50	64.60	8.44	1.89
MTAI	95	153.06	29.04	50	138.48	33.76	2.59*
CPQ (Post)	95	31.04	4.82	50	30.70	5.21	.39
RST	95	80.97	7.42	50	74.46	16.42	2.66**
CES	95	35.05	7.61	50	34.10	7.43	.73

* P .05
**P .01

Summary of Sex Differences. The results of this subsidiary analysis of sex differences shows that females obtained significantly higher scores than males with respect to Course Grades, scores on the Final Examination, scores on the Minnesota Teacher Attitude Inventory, and scores on the Redwood School Test. In addition, females did better on these four variables regardless of whether they were in the Classroom Observation or Simulated Teaching Groups. These results would indicate the need for separate analysis of males and females in the future use of these types of variables.

Intercorrelation of Instruments

Table 23 presents the intercorrelation between the major criterion instruments.

Table 23. Intercorrelations of the Evaluation Instruments

Variables	C. Grades	MTAI	CPQ (Pre)	CPQ (Post)	RST	C. Sat.	Final
Course Grades		.27**	.05	.004	.31**	.22**	.84**
MTAI			.12	.13*	.33**	.15*	.30**
CPQ (Pre)				.60**	.03	.12	-.08
CPQ (Post)					-.02	.28**	-.06
RST						.03	.35**
Course Sat.							.04
Final Exam.							

*Significantly different from zero at the .05 level.
**Significantly different from zero at the .01 level.

It is to be noted that the relatively high correlation between the Final Examination and Course Grades is actually an artifact, since the Final Examination was included in computing Course Grades. The relatively high correlation between the MTAI and the Redwood School Test is interesting, since they are purporting to measure two different areas: attitudes and applicational ability.

The intercorrelations among Course Satisfaction, and Course Achievement are interesting; but would be difficult to untangle. That is, one is not sure whether getting a high grade in the course tends to make one also satisfied with the course or vice versa.

Despite the large number of significant relationships found among the major criterion variables, there is still a large amount of variance unaccounted for in these relationships. This would suggest that these measures are relatively independent in measuring different types of variables.

CHAPTER VII

SUMMARY AND CONCLUSIONS

SUMMARY OF THE STUDY

This study was designed to measure the relative effectiveness of weekly classroom observation and simulated teaching experiences in a six-credit introductory educational psychology course with respect to students' course achievement, attitudes regarding teacher-pupil relationships, career plans, the ability to apply psychological principles to a case study test, and course satisfaction.

Two-hundred and eighty students who enrolled for the course (Education 200, the Individual and the School) during the winter term of 1961 were randomly assigned to one of two groups: the Classroom Observation Group or the Simulated Teaching Group.

Students in the Classroom Observation Group were assigned to a classroom in one of eight school districts in Central Michigan for a maximum of eight weekly visits, with each visit ranging from 30 to 180 minutes.

Students in the Simulated Teaching Group met, outside of class, in groups of from four to six and participated in a simulated teaching experience. Here one of them took the part of the "teacher" who taught an actual lesson for 20 to 60

minutes while the remainder of the classmates took the part of the "pupils."

During the term both groups of students were assigned a series of short papers which were identical except for the focus of attention being in one case on observations in a classroom and in the other on preparing a lesson. In general, all other aspects of the course were the same for both groups with the exception of the observation and simulated teaching experiences.

The series of criterion measures were administered to all students at the end of the term.

The results of the present study indicated that:

(a) There were no significant differences in course grades between students who were in the Classroom Observation or Simulated Teaching Groups.

(b) There were no significant differences in performance on the final examination between the observation and teaching groups.

(c) Scores on the Minnesota Teacher Attitude Inventory showed no significant differences between students who observed and students who did the simulated teaching.

(d) Students in the Classroom Observation and Simulated Teaching Groups showed no significant differences in career plans about teaching at the end of the term.

(e) A significant relationship was found between students' scores on the Career Plans Questionnaire (Post) and the particular instructor to whom they were assigned.

(f) No significant item response shifts on the Career Plans Questionnaire pre-test and post-test administrations occurred in either the observation or teaching groups.

(g) Scores on the Redwood School Test showed no significant difference between students who observed and those who did simulated teaching.

(h) Students in the observation and teaching groups showed no differences in overall satisfaction with the course.

(i) A significant relationship was found between students' satisfaction with the course and the instructor to whom a student was assigned.

(j) In terms of specific item responses regarding particular contributions of the two experiences, students in the Classroom Observation Group tended to feel significantly different than the Simulated Teaching students with respect to considering that the observation experience was more beneficial than all other experiences in the course; the observation experience contributed greatly to their growth as a future teacher; observations affected their attitudes about teaching as a future career; and observations were helpful in terms of understanding the concept of individual differences and principles of classroom discipline.

(k) Responses to individual items by the Simulated Teaching Group showed that they considered the experience to be most helpful in terms of understanding principles involved in the teaching of concepts and skills and in understanding how to state teaching objectives in behavioral terms.

(l) Females scored higher on Course Grades, Final Examination, the Minnesota Teacher Attitude Inventory, and the Redwood School Test. These differences were found irrespective of the groups to which the females were assigned.

LIMITATIONS OF THE STUDY

In order to better interpret the results and implications of this study, it is necessary to point out some of the limitations inherent in the design and methods employed.

Nature of the Course

The course (Education 200) of which this study was a part is in some ways unique. It is a six-credit course which operates in a ten week term basis. It is the first professional course taken in the College of Education and is required for certification in the State of Michigan. In addition, the procedure in the conduct of the course is somewhat unusual in that the first hour of instruction consists of large group activities in a large circular auditorium, while the second hour consists of small discussion groups conducted by advanced graduate students in small classrooms.

Nature of the Sample

While there is no reason to believe that the students in the sample used in this study are in any significant way different from students in other beginning educational psychology courses in other Land Grant Universities, it must be remembered that they were not selected at random to enroll in this course during the winter term of 1961, and they were not selected at random from other universities.

The fact that 66 per cent of the sample were females and 34 per cent were males, while not necessarily a limitation in itself, is important to keep in mind in attempting to generalize the results.

Selection and Nature of the Observation Schools

Perhaps one of the most important limitations to consider in evaluating the results of this study is involved with the method of selecting the schools in which the observations took place. As was pointed out in Chapter III, the Observation Schools were not randomly selected from a population of schools in Michigan. They were selected primarily on a "willingness to cooperate" basis and on their accessibility to Michigan State University. Therefore, a majority of the observations took place in predominantly small village or suburban school systems surrounding Michigan State University.

Assignment of Students to Observation Schools and Teachers

The fact that the students were not randomly assigned to the observation schools or teachers should be emphasized. Random assignment in these instances was not made because of some ethical and practical problems, and also because it was felt that each of the observation situations should fit the future teaching needs of each student involved.

Nature of the Observation Teachers

The author of this study was told by the superintendents and principals that teachers would voluntarily participate

in this program. Therefore, this group of teachers may be quite atypical in certain respects and should not be considered a random sample of teachers.

Length of Observations

The fact that observations varied from two to four hours a week and the time could not be controlled for all students in the Observation Group should be mentioned. In addition, absences could not be avoided in such a program. Thus there were some students who observed only four times, while some attended eight. The mean number of observations was 6.5.

Differences in Observation Classroom Experiences

Since this was a voluntary program on the part of the Observation Teachers, no control could be exercised over the procedures in each classroom. Thus, we find variability in observer experiences which range from merely sitting in a corner and observing to actual participation with pupils in the classroom or, in some cases, the actual teaching of a short lesson.

Time Differential Between Observation and Simulated Teaching Groups

The fact that the observation students spent more total hours in extra-class activities than the simulated teaching

students may have introduced some negative feelings toward the course in the observation students.

CONCLUSIONS

Results of Major Analyses

The results of the present study indicated that when students enrolled in an introductory educational psychology course were randomly assigned to either a series of weekly classroom observation or to simulated teaching experiences, there were no significant differences between the groups with respect to course grades, final examination scores, attitudes about teacher-pupil relationships, career plans, the ability to apply psychological principles, and course satisfaction.

These findings fail to support survey studies which have reported extremely favorable subjective feelings as to the benefits obtained from classroom observation. In addition, they fail to confirm the expressed feelings of a number of different educational groups made up of prominant educators as to the expected benefits of classroom observation in the professional preparation of teachers. More specifically, they do not support the expressed opinion of some educational psychologists as to the contributions classroom observation can make in educational psychology courses.

Two significant relationships were obtained in the analysis, however, which indicated that career plans and course satisfaction were related to the particular instructor to whom the students were assigned. The significant relationship found between instructor and career plans would tend to support some theories of occupational choice which emphasize the influence of a particular individual in the selection of an occupation.

Results of Subsidiary Analyses

Another significant finding of this study is the apparent discrepancy between subjective impressions of the worth of the observation experience and the actual measure of these contributions. Similar findings have been reported by Cox (1) and Sinclair (2). Thus, either students are unable to perceive or report what they have learned, or the type of learnings that take place under observation experiences have not been measured by the instruments used in the three studies.

There may be a factor of social desirability operating in the subjective reports. That is, if a teacher goes through the trouble of arranging for classroom observations in public schools with free transportation provided, one might suspect that the student would be reluctant to say that

this experience contributed little to the course or to his growth as a future teacher.

The fact that there were significant differences between males and females (in favor of the females) with respect to course grades, final examination scores, scores on the Minnesota Teacher Attitude Inventory, and Redwood School Test scores, regardless of whether students were in the Observation or Simulated Teaching Groups, is an interesting finding. These differences should be investigated and taken into consideration in future studies.

IMPLICATIONS OF THE FINDINGS

The implications of the findings of this study are numerous. In fact they raise a number of interesting questions that must be experimentally investigated if the contributions of classroom observation to teacher education are to be understood fully. The findings of this study and others suggest the need for the following types of studies:

(a) Replication of the present study using the same instruments and same methods.

(b) Observation studies using different types of observation schools.

(c) Studies which systematically vary the types of classroom experiences. For example, a comparison between students who merely observe a class with students who actively participate with pupils.

(d) A comparison of classroom observation to other types of classroom procedures (e.g. term papers, movies, classroom teacher and pupils visiting a college class for a demonstration, etc.).

(e) Studies of classroom observation using different types of instruments which may measure other factors involved in observation experiences (for example, a test to measure possible changes in self-concept in relation to the role of being a future teacher).

(f) Studies to investigate the discrepancies between actual versus perceived learnings in observation experiences.

(g) Studies which systematically vary the time of observations (in terms of hours and weeks) in relation to other aspects of educational psychology courses.

(h) Studies which investigate sex differences in terms of performance in educational psychology courses.

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APPENDIX A

CAREER PLANS QUESTIONNAIRE

CAREER PLANS QUESTIONNAIRE

Directions: In the following questions you are asked to give your reactions to some situations that frequently occur. Five alternatives are presented for each question. You must choose the ONE which most closely states your decision. Sometimes you may feel that none of the alternatives say what you would do; sometimes you may think some combination states your position better. However, pick only the one which most closely states your opinion. Obviously, there are no right or wrong answers. Give your own personal reaction as you honestly see it at the present time.

1. What is your intention toward becoming a teacher?
   a. I have definitely decided I want to be a teacher.
   b. I probably will want to be a teacher.
   c. I don't know whether I want to be a teacher or not.
   d. I don't particularly like the idea of teaching, but it's something to fall back on.
   e. Only if all my other plans fell through would I actually consider teaching.

2. Suppose one of your professors tells you that you do not have the right kind of personality to be a teacher. How would you react?
   a. I'd probably agree and change to another field.
   b. I'd be disappointed and begin looking for some other field.
   c. I don't know what I'd do.
   d. I would reconsider teaching as my career, but would probably continue in it.
   e. I would be all the more determined to enter teaching.

3. Suppose that your test results showed that you had the aptitudes and abilities that would practically guarantee that you would be highly successful in any occupation you entered. What would you do?
   a. I would still plan to be a teacher.
   b. I would probably go into teaching, but first I would want to consider some other possibilities.
   c. I don't know what I would do.
   d. I would probably decide on some other occupation that would give me more of what I wanted out of life.
   e. I would definitely choose some other occupation.

4. It has been proposed that, since teachers must be skillful in so many areas, the teacher training program should be five years instead of four. If such a law were passed, how would it change your plans?
   a. That would be the last straw--no teaching for me.
   b. A law like this would probably convince me I should change fields.
   c. I would seriously reconsider my career plans but would probably continue in teaching.
   d. I would dislike spending an extra year, but I would do it to become a teacher.
   e. I would welcome the extra year as an opportunity to prepare myself better for my teaching career.

5. Suppose that you actually become certified as a teacher. You are looking for your first teaching job. There is an over-supply of teachers in your specialty, and the only teaching job you can find would require you to teach a subject that you don't like even though you had some training in it. What would you do?
   a. I would take it anyway, hoping I could move into my own specialty when a vacancy occurred.
   b. I would take it, but only on the condition that I could move into my own specialty within one year.
   c. I don't know whether I would take it or not.
   d. I probably would not go into teaching if I had to teach a subject I did not like.
   e. I would refuse to teach a subject I did not like for even a short time, so I would find some other kind of work.

6. Imagine now that you have actually become a teacher and have been teaching for a year or two. You have just been offered an attractive position with a substantial business concern. Would you change jobs?
   a. Yes, even if I had to take a slight salary cut.
   b. Yes, but they would have to at least equal my present teaching salary.
   c. Yes, but only if they paid my $1000 per year more.
   d. Yes, but only if they at least doubled my present teaching salary.
   e. No, I don't think I'd change jobs for any amount of money.

7. Imagine again that you have actually become a teacher. Your school board suddenly requires that all teachers must get a Master's degree (45 credit hours) within the next five years or be fired. What would you do?
   a. I would have wanted to get the Master's degree anyway to improve
   b. I would probably go ahead and get the Master's degree so I could remain in teaching.
   c. I would try to find another school system that did not make this requirement.
   d. I would continue teaching for the five years and then take another kind of job.
   e. I would resign as soon as I could find a decent job in some other field.

8. Suppose you become a teacher but find your salary is inadequate to maintain the standard of living you want. What would you do?
   a. I would take the first decent job I could find that paid more money.
   b. I would probably begin looking for some other kind of job with better pay.
   c. I'm not sure what I would do.
   d. I would try to find a part-time job after school hours.
   e. I would make some sacrifices and go without some of the things I wanted to continue teaching.

9. Suppose you become a teacher but after a few years discover that your best friends in other occupations seem to have less respect for you because of your occupation. What would you do?
   a. I would stay in teaching and find other friends.
   b. I would probably stay in teaching but try to win their respect in other ways.
   c. I would become less happy with my teaching and consider other job possibilities.
   d. I would probably change jobs if I could find one more similar to the jobs of my friends.
   e. I would definitely get out of teaching.

10. (Females only answer question 10F. Males only answer question 10M.)

10F. (Females only answer.) Suppose you become certified to teach and soon after graduation you get married. Your husband earns a comfortable income and does not care one way or another whether you teach. What would you do?
a. I definitely would not want to teach.
b. I probably would not teach unless we very much wanted the extra money.
c. I don't know whether I would want to teach or not.
d. I would like to teach for just a few years until we started our family.
e. I would definitely want to make a career of teaching except when our children were young.

10M. (Males only answer.) Suppose you become certified to teach and soon after graduation you get married. Your wife happens to come from a prosperous family of considerably more wealth than yours. Her father offers to take you into the family business and let you learn it from the ground up. Your wife wants you to do what would make you happiest. What would you do?
a. I would jump at the chance to learn the business from the ground up.
b. I would probably start out in the business to see how well I liked it.
c. I don't know what I would do.
d. I would like to start out in teaching although I might change my mind in a few years.
e. I would definitely plan on a teaching career.

APPENDIX B

COURSE EVALUATION SCALE

EDUCATION 200

COURSE EVALUATION

This evaluation will have no relation to your grade in the course. In order to keep your replies anonymous and still make a thorough evaluation of the course, these replies will be taken to the Bureau of Educational Research for summarizing. The replies will be coded with a number and this first sheet will be torn off. Your instructors will not see your evaluation with your name on it. Feel free to answer the questions frankly and honestly.

Name _____

Student Number _____

Time of Lecture Class: AM ____

PM ____

Section A
COURSE EVALUATION SCALE
ED 200

This scale is designed to help your instructors in evaluating the effectiveness of instruction in this course. Your response will have no bearing on your grade. In order to be of maximum value, you are asked to be sincere, honest, and objective in your answers.

Please choose the alternative which best completes each statement for you. Circle the letter in this booklet, and mark the appropriate space on the answer sheet. Some questions which ask for your free response should be answered in the space provided in this booklet.

1. As far as class participation is concerned, I would have liked to participate
   a. much more.
   b. a little more.
   c. no more than present.
   d. a little less.
   e. much less.

2. As far as the time devoted to discussion in the course, I would have liked to have spent,
   a. much more time on discussion.
   b. a little more time on discussion.
   c. no more nor no less time in discussion.
   d. a little less time in discussion.
   e. much less time in discussion.

3. As far as the information in this course is concerned,
   a. I think it will be very useful in my future teaching.
   b. I think it will be somewhat useful in my future teaching.
   c. I am not sure whether or not it will be useful in my future teaching.
   d. I think it will be of little use in my future teaching.
   e. I think it will be of no use in my future teaching.

4. My general attitude toward this course is that
   a. I am very glad I took the course.
   b. I am glad I took the course.
   c. I am neither glad nor sorry I took the course.
   d. I am very sorry that I took the course.
   e. I am sorry that I took the course.

5. I feel that the objectives of the course have been
   a. very well met.
   b. well met.
   c. satisfactorily met.
   d. poorly met.
   e. very poorly met.

6. The textbook, Educational Psychology by Cronbach, has helped meet the objectives of the course.
   a. very well
   b. well.
   c. in an average manner.
   d. poorly.
   e. very poorly.

6a. What do you like or what don't you like about the textbook?

7. I felt that the lectures were
   a. very valuable.
   b. valuable.
   c. average.
   d. of little value.
   e. of practically no value.

7a. What did you like or dislike about the lectures?

8. I feel that the movies were
   a. very valuable.
   b. fairly valuable.
   c. about average.
   d. of little value.
   e. of practically no value.

8a. Which movies do you remember as being most helpful? Least helpful?

9. How well did the examinations measure your knowledge of the facts and applications to be gained from this course?
   a. very well.
   b. fairly well.
   c. about average.
   d. poorly.
   e. very poorly.

9a. How can the examinations be improved?

10. Considering all the ways that were used to evaluate your performance in the course, how well do you think the system as a whole measures your attainment of the class objectives?
    a. very well
    b. fairly well.
    c. about average.
    d. poorly
    e. very poorly

10a. How could the grading system used in this course be improved?

11. How valuable were the short quizzes?
    a. very valuable
    b. valuable
    c. about average
    d. of little value
    e. practically no value

11a. How could the quizzes be improved?

12. How valuable were the Written Reports and all the activity connected with it.
    a. very valuable
    b. valuable
    c. about average
    d. of little value
    e. of practically no value

12a. What suggestions would you give for making the Written Reports more valuable?

13. During the first-hour meetings in the Kiva, what type of activity best helped you in attaining the objectives of the course?
    a. straight lectures
    b. demonstrations in which the whole class participates
    c. instructor-led class discussions
    d. movies
    e. demonstrations involving only a few students directly but observed by others

14. In question 13 above, what was the second most helpful activity?
    a. straight lectures
    b. demonstrations in which the whole class participates
    c. instructor-led class discussions
    d. movies
    e. demonstrations involving only a few students directly but observed by others

14a. What suggestions can you give to improve the first-hour meeting?

15. How valuable were the activities planned and carried out for the second-hour class?
    a. very valuable
    b. valuable
    c. about average
    d. of little value
    e. of practically no value

15a. What suggestions would you give for improving the second-hour activities?

16. When your second-hour class had class discussions, how valuable do you think they were?
    a. very valuable
    b. valuable
    c. about average
    d. of little value
    e. of practically no value

16a. What suggestions can you give to improve the second-hour class discussions?

17. What constructive suggestions can you make which would help improve the quality of future ED 200 classes? Any ideas as to types of class activities? Anything else you think we should know?

APPENDIX C

LETTERS TO OBSERVATION TEACHERS

College of Education
Michigan State University
East Lansing, Michigan
December 28, 1960

Dear Sir:

In an attempt to help beginning elementary education students discover what school children are really like, we would like to try out a plan allowing them extended observations in actual classroom situations. Students involved in this plan would be mostly sophomores taking their first required course in education, ED 200, The Individual and the School.

For the Winter Term we are attempting to make plans for a series of short (two to three hour) weekly observations of classrooms in the communities surrounding Michigan State University. The purposes of this unique observational experience are as follows:

Elementary Level

(1) To observe the same children over a period of time to note readiness for various classroom activities.
(2) To allow students a chance to observe how individual differences appear as the class moves into different areas.
(3) To observe problem solving behavior of a group of children over time.
(4) To note differences in children in a variety of play, learning, and social types of activities.
(5) To identify themselves with the many roles a teacher has to play in the daily classroom activities.
(6) To appraise their own motivations and attitudes toward teaching in light of this experience.

In conclusion, we are asking your cooperation in allowing a few of our students to make visits to some of your classrooms during the Winter Term (January 6 to March 14) on a trial basis. We would hope that such observations would not interrupt your program in any way.

Your consideration of this matter would be greatly appreciated.

Sincerely,

Gerald Hershey
Assistant Instructor of Education

College of Education
Michigan State University
East Lansing, Michigan
December 28, 1960

Dear Sir:

In an attempt to help beginning secondary education students discover what school children are really like, we would like to try out a plan allowing them extended observations in actual classroom situations. Students involved in this plan would be mostly sophomores taking their first required course in education, ED 200, The Individual and the School.

For the Winter Term we are attempting to make plans for a series of short (two to three hour) weekly observations of classrooms in the communities surrounding Michigan State University. The purposes of this unique observational experience are as follows:

Secondary Level

(1) To observe individual differences in students during actual classroom activities in the subject matter area in which they plan to teach.
(2) To observe problem solving behavior of a group of students over time.
(3) To see how students handle different units of course materials in a particular subject area.
(4) To identify themselves with the many roles a teacher has to play in the daily classroom activities.
(5) To appraise their own motivations and attitudes toward teaching in light of this experience.

In conclusion, we are asking your cooperation in allowing a few of our students to make visits to some of your classrooms during the Winter Term (January 6 to March 14) on a trial basis. We would hope that such observations would not interrupt your program in any way.

Your consideration of this matter would be greatly appreciated.

Sincerely,

Gerald Hershey
Assistant Instructor of Education

APPENDIX D

OBSERVATION SCHEDULE CARD

ED 200 OBSERVATION SCHEDULE CARD

Name (Print) _____ _____
Last First

Student No._____ ED 200 AM_____ PM_____

Discussion Leader_____

Level and Subject Area I wish to observe:
(for example, Kindergarten, 3rd grade, 10th grade math, 12th grade science.)

	GRADE	SUBJECT AREA
1st Choice	_____	_____
2nd Choice	_____	_____
#RD Choice	_____	_____

On the reverse side please please indicate your schedule (Place course numbers in the squares.)

List below your 1st, 2nd, and 3rd choices for weekly class observation. Be sure to pick times where you have at least 3 to 4 hours available at one time.

	DAY	HOURS
1st Choice	_____	_____
2nd Choice	_____	_____
3rd Choice	_____	_____

APPENDIX E

SUGGESTIONS CONCERNING OBSERVATIONS IN SCHOOLS

ED 200
Winter 1961

SUGGESTIONS CONCERNING OBSERVATIONS IN SCHOOLS

Next week you will begin a unique experience in your development as a professional teacher. For many of you this will be the first time you have returned to a public school since you were a student. Therefore, you will be viewing the classroom from an entirely different perspective--that of a future teacher who will one day be at the head of a classroom.

The College of Education feels that a series of weekly observations such as these should be an extremely valuable learning experience for students enrolled in ED 200. Thus, arrangements have been made for weekly classroom observations in several schools in the surrounding area. For many of these schools this will be the first time that students from Michigan State University have visited their classrooms over such an extended period of time.

Permission to visit these schools was granted by the school administrators and teachers with the conviction that such an experience will aid in the development of better teachers. In turn, they have asked us to discuss with you a few reminders to help make the experience rewarding for everyone concerned:

1. A visit to a school is a "dress-up" occasion.
2. All school records are absolutely confidential.
3. Observers are requested to be in the classroom at the start of the class period. Back-of-the-room conversation should be avoided. (Note: Bus schedules may necessitate late arrival and early departures from classrooms; be sure and enter and leave quietly.)
4. Hasty generalizations concerning what is seen are to be avoided.
5. Observers should refrain from critical remarks while in the school.
6. Names of teachers and schools should be omitted in observation reports (both oral and written).
7. While in the school, observe conduct which is befitting a representative of Michigan State University.
8. Smoking and gum chewing are not appreciated in public schools.

Buses and limousines will leave promptly at the times indicated on your observation assignment sheets. Students are urged to board the buses and limousines 10 minutes prior to departure for role call and last minute announcements.

Your assignments will stay the same throughout the term and you should plan to meet the bus or limousine at the same time and place every week. The first scheduled bus trip is Monday at 8 AM (January 16) and the last day of observations is scheduled on Thursday, March 9.

On the first day of your observations you will be shown to your particular room; thereafter you are to go directly to that room.

APPENDIX F

EVALUATION CHECK LIST FOR SIMULATED TEACHERS

ED 200

EVALUATION CHECK LIST FOR SIMULATED TEACHING

Teacher_____ Date_____
Pupil_____

Now that you have devoted a large portion of the term preparing your lesson, you are ready to actually begin teaching to a group of your classmates. While you are doing your teaching, your "pupils" will be reacting to your lesson in terms of trying to help you become a more effective teacher. Specifically, they will be attempting to provide you with some "feedback" regarding specific portions of your lesson.

The following Check List will be filled out by your "pupils" during and immediately after the presentation of your lesson. They will then be handed over to you to be used and included by you in your own final evaluation paper (Myself as a Teacher, due March 6). These evaluation sheets are for the benefit of you, the teacher, and will in no way influence your grade. It is thus, for the benefit of all concerned, that each "pupil" be as objective as possible in filling these out.

PART I--OBJECTIVES	Yes	Partially	No
1. What are the main objectives in this lesson?			
2. Did the teacher accomplish these objectives?			
3. If you were a "real pupil" in this class, how would your behavior have changed as a result of this lesson?			
PART II--TEACHING CONCEPTS			
1. List the major concept or concepts that were emphasized during the lesson.			
2. Do you have a clear idea of these concepts?			
3. Did the teacher attempt to determine readiness?			
4. Did the teacher build and maintain interest during the lesson?			
5. Did the teacher give an opportunity to apply the concepts to an unfamiliar problem?			
6. Did the pupils have an opportunity to gain "realistic" experience with the new concepts?			
7. Was an opportunity provided to encourage pupils to ask questions and make trial interpretations?			
8. Did the teacher use a "whole-then-part" plan?			

PART III--TEACHING SKILLS Did the teacher:	Yes	Partially	No
1. Attempt to determine readiness?			
2. Attempt to build interest?			
3. Make you aware of cues to which you should be sensitive?			
4. Provide opportunity for feedback and correction?			
5. Provide for you to evaluate your own performance?			
6. Provide for you to describe the process?			
7. Use reinforcement to desired responses? What type? _____			
PART IV--TEACHING FOR TRANSFER AND RETENTION			
1. What relevance does the unit have for pupil behavior outside the class?			
2. Was this pointed out to the class?			
Did the teacher:			
3. Draw on pupils' past experience to make the transfer of this lesson clearer?			
4 Provide pupils a chance to practice many desired responses?			
5. Provide pupils an opportunity to state the desired principles?			
6. Attempt to insure that pupils saw the application outside of class?			
7. Attempt to prevent prior misconceptions or biases from making it more difficult to learn the desired response?			
8. Allow for review of material?			
9. Make provision for differences in rate of learning among pupils?			

PART V--EVALUATION OF TEST ITEMS

		Multiple Choice #1 #2 #3	Essay
1. Is the stated purpose of the test item also one of the purposes of the course?	Yes		
	Partially		
	No		
2. To answer the item correctly, must the pupil make one or more of the types of responses listed in the course objectives?	Yes		
	Partially		
	No		
3. If a pupil incorrectly answered this item, would you say he probably had not achieved one of the aims of the "course"?	Yes		
	Partially		
	No		
4. Does this item really measure something important and worth while?	Yes		
	Partially		
	No		
5. Does the test question make it perfectly clear what is expected?	Yes		
	Partially		
	No		
6. Does the test question require the pupil to make some application rather than repeat memorized words?	Yes		
	Partially		
	No		

APPENDIX G

CLASSROOM OBSERVATION GROUP SERIES OF WRITTEN ASSIGNMENTS

ED 200

First Written Assignment
Specifying Objectives Based on Classroom Observation

Next week you will be observing a public school classroom for the first time as part of your sequence of learning experiences for ED 200. In order to help you better understand the particular classroom which you will be observing the remainder of the term, we would like you to consider such questions as the following: What types of objectives would you feel are important for a class such as this? How would pupils act if you were successful in attaining these objectives? How would they act if you had failed? In the observations you have made thus far, what types of objectives does the teacher seem to be teaching for? What types of pupil behavior indicate she has (or has not) accomplished these objectives? (Cite specific incidents where possible.) Use the following outline:

1. Briefly describe the setting: Type of school, grade level, subject matter, type of pupils.
2. State some of the long range objectives you feel are important for this type of class. List some of the ways pupils would be expected to behave (things they would do or say) at the end of the class if these objectives had been attained.
3. On the basis of your observations thus far, what are some of the short-range objectives the teacher seems to be working for during the particular time you have observed her class? Are they related in part to the long-range objectives you have listed in part 2? If so, how? If not, what other types of long-range goals might she be working toward?
4. On the basis of your observations thus far, cite some pupil behaviors that you have observed which seemed to indicate to you that progress toward some of the long and short-range objectives is or is not being made.

ED 200
Second Written Assignment
Teaching Concepts and Skills
in Classroom Observations

Thus far, you have thought about some of the broad objectives toward which your observation class is working. You have also had the opportunity to observe instances of classroom behavior which would suggest whether progress toward these objectives was being made. The achievement of these overall objectives will generally involve the teaching of some particular concepts and/or some specific types of skills.

For example, if you are observing a class in biology and one of the overall objectives appears to be the development of a broad understanding of the functioning of the human body, one of the important concepts that the student will have to comprehend might be the idea of "body metabolism." In addition, skills such as learning to dissect a frog or the proper use of a microscope would also be necessary in order to attain this objective.

The purpose of this paper, then, is for you to begin thinking about ways to approach the teaching of concepts and skills in the type of class in which you are observing. Use the following outline.

I. Restate briefly (or attach) the overall objectives mentioned in your First Written Assignment. What types of concepts and/or skills will the student have to master in order to accomplish these objectives? List them and tell why you feel they are necessary for the attainment of those particular objectives.

II. Describe in some detail the steps by which the teacher helped her pupils master some of these concepts and/or skills. Observe the way in which the pupils responded. Relate your observations to what you are learning in class and textbook. The following questions should be helpful:

A. For both concepts and skills.

1. How did the teacher determine the readiness of students to learn?

2. How does teacher get students to respond in the way she desires?
3. How do students respond to these techniques?
4. Describe how pupils respond after the teacher's use of positive reinforcement, punishment, and negative reinforcement?
5. How does teacher maintain students' interest in the concepts or skills she is trying to teach?
6. How does teacher provide for individual differences in rate of learning? How do students respond to these procedures?

B. For concepts:

1. What techniques does teacher use to develop precision in the meaning of concepts? Give examples.
2. Are pupils encouraged or discouraged from asking questions, making trial interpretations, revising earlier ideas? What kind of questions do they ask? Give examples.
3. How does teacher help to move pupils to a deeper level of understanding? Does the pupil ever use a new principle or concept in solving an unfamiliar problem? Give an example.
4. What opportunities do pupils have to gain realistic experience with new concepts or skills?
5. Do pupils draw up and state explicitly the new principles they have learned? How did the teacher arrange this? Give an example.
6. How is new material organized into appropriate segments? Whole-then-part? How meaningful and appropriate was the "whole" to the pupils readiness?

C. For Skills:

1. How did the teacher make pupils aware of the cues to which they should be sensitive?
2. How did the teacher help in providing feedback and correction?
3. How were pupils trained to evaluate their own performances independently, i.e. to provide their own feedback and correction?

4. How much practice was alloted to learning this skill?
5. How were the practice periods spaced?
6. Describe any demonstrations that were given:

   To what extent did pupils describe what the demonstrator was doing?

   To what extent did the demonstrator correct pupil errors?

ED 200
Third Written Assignment
Classroom Observation
Insuring Transfer
and Retention

Now that you have thought about some of the objectives, concepts and skills involved in your particular classroom observations, we are ready to consider the problem of whether any of these things are being carried over into the daily lives of the students and whether they tend to retain some of these concepts and skills once they have learned them.

It is nonsense if a child spells "receive" correctly in school but misspells it when writing a thank-you note at home.

In your observations you should pay particular attention to the way in which pupils learn so that they will retain their new responses and be able to use them appropriately in the future. Your textbook, outside readings, and class discussion contain many points you should consider in observing how children remember and transfer new learning. Here are some questions that will help you organize your observations:

1. What relevance does the material have for pupil behavior outside of class? What will a pupil do or say outside of class as a result of what he learns in class?
2. What past experiences of pupils (or what other illustrative materials) are used to make some main point clear? Give examples.
3. How are the activities planned to provide pupils with a chance to practice <u>many</u> desired responses, e.g., better work habits, working with others, emotional control, parliamentary procedures, good English usage, better reasoning processes, etc.
4. How does each pupil have an opportunity to state the desired general principle himself?
5. What attitude are pupils developing toward the work? Why?
6. What observable pupil behaviors have you noticed which indicate that transfer has (or has not) occurred? Give examples of how the teacher helps pupils see applications outside the class.
7. What opportunities are provided for pupils to see applications in increasingly varied and complex situations?
8. What pupil misconceptions, biases, or prejudices have you observed which make it more difficult to learn? Give examples.

9. Is there any way that pupils use learning curves--or otherwise compare their own performance with their previous performance and get goals for future performance?
10. What things do the pupils overlearn? How is this achieved?
11. How are reviews spaced over a period of time? What new ways are devised to review old material?
12. How is interference minimized?

ED 200
Fourth Written Assignment
An Achievement Test

You must now devise a procedure to find out how well pupils learned to make the responses they were supposed to have learned. Although many procedures are possible, a written test is one of the most valuable and popular evaluation devices.

Specifically, you are asked to devise three "multiple-choice" questions and one "essay" question to measure the important objectives of the unit you are either teaching or observing. Follow these suggestions in devising the items:

1. State the specific objective that you want that particular item to measure. (Naturally, this should be related to one of the major objectives you had listed previously.)

2. Think of some situation in the life of your pupil where he will be called upon to make the response you consider desirable.

3. Write up this situation in a test item form. In the essay question, the pupil should then have to make the desired response. In the multiple-choice items he should have to discriminate between the desired response and plausible but wrong (or less desirable) responses.

4. Loosen up! Be flexible! Creativity is called for!

5. As you devise each item, consult the Check List for Evaluating Test Items to make sure the items meet all the standards.

6. The following item is illustrative of the desired format for a multiple-choice item:

   Purpose of test item #1: To measure if students have learned that unreliability of scoring essay questions is the chief reason for their diminished use.

   Item #1. During a parent-teacher conference a parent says to you, "I don't see why you teachers

don't use essay questions any more. In my day we used to spend all day writing answers to questions like 'Discuss the reign of King Henry VIII.'" What would be the most accurate reply to this parent?

A. "It would take too much time for teachers to score."

B. "Pupils who were fast writers had an unfair advantage in tests of that type."

C. "Teachers are able to 'play favorites' and unconsciously give the best grades to the pupils they like."

D. "Essay questions tended to encourage cheating because the fewer number of essay questions would be remembered and passed from class to class."

*E. "The same essay answer would receive different grades from different teachers and from the same teacher at different times."

7. The essay question must be accompanied by the complete directions for scoring. This means that you must state how much credit you will give for each of the specific type of responses you desire and give a sample answer for each.

Example Form for Essay Question:

Purpose of test item #2: To measure if students can apply the definition of learning to a concrete situation.

Item #2: On September 14 you taught your class that Albany was the capital of New York. What procedure could you have used to show that a pupil in your class had learned this fact on September 14?

Answer to Item #2:

Give 2 points credit if student's answer indicates a procedure for identifying some change of behavior before and after the September 14 experience.

(A sample answer worth 2 points)

*Correct response

"On September 13, I asked Johnny what the capital of New York was and he replied, 'I don't know.' On September 15, I asked the same question and he replied, 'Albany.'"

Give 1 point credit if student's answer indicates a procedure for identifying any observable behavior following the September 14 experience but neglects to indicate change.

(A sample answer worth 1 point)

"After teaching my class, I would give a test and ask, 'What is the capital of New York?' If most of the class wrote 'Albany,' I would know they had learned."

Give 0 points if student's answer fails to specify a procedure for collecting a sample of their behavior.

(A sample answer worth 0 points)

"If they knew the capital of New York was Albany."

The preceding was simply an example of the <u>format</u> of how your essay question might be constructed. Naturally your question will be much different and will measure your own objectives. Just be sure you include specific sample answers to illustrate how you would score possible answers.

ED 200 - Krumboltz

Check List for Evaluating Test Questions

	Max. for yes	Multiple choice #1 #2 #3	Essay
1. Is the stated purpose of the test item also one of the purposes of the course?	5		
2. To answer the item correctly, must the pupil make one or more of the types of responses listed in the course objectives?	5		
3. If a pupil incorrectly answered this item, would you say he probably had not achieved one of the aims of the "course"?	5		
4. Does this item really measure something important and worth while?	5		
5. Does the test question make it perfectly clear what is expected?	3		
6. Does the test question require the pupil to make some application rather than repeat memorized words?	3		
For Multiple-Choice Questions Only 7. Is one and only one alternative clearly the "best" or "most correct" answer?	3		X
8. Would the incorrect alternative seem plausible to a person who has not yet attained the specific objective measured by this item?	3		X
9. Is the correct alternative roughly the same length as the incorrect alternatives?	2		X
10. Is the item written so pupils do not receive an unintended clue from either the grammatical structure or dependent alternative?	2		X
For Essay Question Only 11. Have the ideas for which credit will be given been specified in advance?	4	X X X	
12. It is clear how much credit each type of response will receive?	2	X X X	
13. Have expected illustrative answers for various degrees of quality been provided?	4	X X X	

ED 200

Fifth Written Assignment

Classroom Observation Group

Myself as a Teacher

Now that you have been observing a classroom for several weeks, it is time to attempt a synthesis of your varied experiences and feelings during this period. Some of the purposes of this final paper are:

a. To assist you in thinking about this observation experience in terms of what effect it has had on you.

b. To assist you in citing instances of behavior which helped bring to life some psychological principle or principles we have discussed.

c. To help you better understand yourself as a future teacher.

d. To think about ways you might have differed in teaching such a class as you observed.

e. To note your feeling toward pupils in the classroom and their behavior.

In general, we hope that this final paper will allow you an opportunity to do some serious thinking about your own feelings toward teaching as a future career.

NOTE: All four previous written assignments are to be handed in with this final paper and will be retained by your instructor.

I. Cite examples of situations that occurred during your observation experiences which you felt illustrated some psychological principles that you have learned and which seemed most meaningful to you.

II. Do you feel that some of the overall objectives listed in the first written assignment have been met or partially met during your period of observation? What behavioral changes in these directions have you noticed from your first to your last observation?

III. If you were teaching the class you observed, how would you have taught the class?

IV. How did you feel about the teacher you observed?

V. How did you feel about this type of school and community?

VI. How did you react to the pupils you observed? How did they react to you?

VII. How has the observation experience influenced your feelings about teaching?

APPENDIX H

SIMULATED TEACHING GROUP SERIES OF WRITTEN ASSIGNMENTS

ED 200

First Written Assignment
Specifying Objectives for Simulated Teaching

The first step in planning the lesson you will teach is to state your purpose. What do you hope to accomplish? How will your pupils act if you are successful? What pupil behaviors will tell you that you have failed? Use the following outline:

I. Describe the setting in which you imagine you might be teaching. Type of school. Grade level. Subject matter. Type of pupils.

II. State some of the long-range objectives you might hope to accomplish in the year or semester that you ordinarily would have. That is, list some of the ways your pupils will do or say things differently at the end of the term.

III. State a few objectives you can reasonably hope to accomplish in 30-40 minutes of class time. That is, list those things you would want your pupils to say or do at the end of these 30 or 40 minutes that they do not say or do now. Be sure that these short-range objectives are consistent with (though only a small part of) the long-range objectives listed in Part II.

IV. How would you know if you were unsuccessful or partially unsuccessful in accomplishing your objectives? That is, what might your pupils do or say that would indicate they had not changed their behavior in the desired direction?

ED 200

Second Written Assignment
Teaching Concepts and Skills in Simulated Teaching

Now that you know what objectives you are trying to accomplish and can state some illustrative behaviors related to these objectives, you are ready for the next step. In this paper you are to describe the way in which you will help your "pupils" learn the concepts or skills they will need in order to accomplish the overall objectives. Specifically, you are asked to develop a tentative lesson plan accompanied by explanations of how your proposed teaching methods are consistent with what you have been learning from class and textbook.

The following outline will suggest some of the things you will want to include:

I. Restate briefly (or attach) the objectives you wish to accomplish (from the First Written Assignment). What concepts and/or skills will the pupil have to learn in order to accomplish these skills? List them and tell why you feel they are necessary for the attainment of those particular objectives.

II. Outline the steps you will go through to help your pupils learn one or two of the concepts or skills. Try to pick something you can hope to accomplish at least partially in 30-40 minutes. As you outline your procedures, explain how they are consistent with what you are learning in class and textbook. The following questions should be helpful:

A. For both concepts and skills:

1. How will you determine readiness?
2. How will you build and maintain interest?
3. How will you get your pupils to begin making the desired responses?
4. What type of consequences do you plan to provide for desired responses? For undesired responses?
5. How will you provide for individual differences in rate of learning?

B. For concepts:

1. How will you insure that pupils develop precise meanings for concepts--neither too inclusive nor too narrow?

2. How will you move pupils to a deeper level of understanding? What experience will they get in applying a new concept or principle to an unfamiliar problem?
3. What opportunities will pupils have to gain "realistic" experience with new concepts or skills?
4. Will pupils have an opportunity to state explicitly the new concept principle or conclusion that they have learned?
5. What provision are you making to encourage pupils to ask questions, to make trial interpretations, and to revise earlier ideas?
6. How meaningful is the organization of the new material to the pupils at their level of readiness? Are you using a "whole-then-part" plan?

C. For skills:

1. How will you make pupils aware of the cues to which they should be sensative?
2. How will you provide feedback and correction?
3. How will you train pupils to evaluate their own performance independently, i.e., to provide their own feedback and correction?
4. How much time will you allot to practice on the skill?
5. How will practice be spaced (ideally)?
6. In your demonstration how will you provide for the pupils to describe the process?
7. How will you correct any errors in their description?

ED 200

Third Written Assignment
Insuring Transfer and Retention in
Simulated Teaching

Now for a most crucial question--What can you the teacher do now that will insure that your pupils will remember and apply their new responses appropriately in other situations? It is nonsense if a child spells "receive" correctly in school but misspells it when writing a thank-you note at home.

In your simulated teaching you must teach in such a way that your "pupils" will retain their new responses and will use them appropriately in the future. Your textbook, outside readings and class discussion contain many points you should consider in planning to teach for transfer and retention. Here are some questions you will need to consider in your planning:

1. Does your teaching unit have any relevance for a pupil's behavior outside of class? What will he say or do outside of class as a result of what you plan to teach?
2. How will you draw upon pupils' past experience or provide lucid illustrative material to make the point clear?
3. How are the activities planned to provide pupils with a chance to practice many desired responses, e.g., better work habits, working with others, emotional control, parliamentary procedure, good English usage, better reasoning process, etc.
4. In what ways will you get pupils to state the desired general principle themselves?
5. What are you doing to help students develop favorable attitudes toward the work?
6. What ways are you using to insure that pupils see the applications outside of your class?
7. What opportunities will you provide so that pupils may see applications in increasingly varied and complex situations?
8. What prior misconceptions, biases or prejudices may make it more difficult for your pupils to learn the desired responses?
9. Is there any way in which learning curves could be incorporated in setting goals for each pupil? If so, how?
10. How will pupils have a chance to overlearn the crucial points?

11. How would you plan reviews over a period of time so that key ideas were reviewed in new ways at properly spaced intervals?
12. What steps can you take to minimize interference?

ED 200
Fourth Written Assignment
An Achievement Test

You must now devise a procedure to find out how well pupils learned to make the responses they were supposed to have learned. Although many procedures are possible, a written test is one of the most valuable and popular evaluation devices.

Specifically, you are asked to devise three "multiple-choice" questions and one "essay" question to measure the important objectives of the unit you are either teaching or observing. Follow these suggestions in devising the items:

1. State the specific objective that you want that particular item to measure. (Naturally, this should be related to one of the major objectives you had listed previously.)

2. Think of some situation in the life of your pupil where he will be called upon to make the response you consider desirable.

3. Write up this situation in a test item form. In the essay question, the pupil should then have to make the desired response. In the multiple-choice items he should have to discriminate between the desired response and plausible but wrong (or less desirable) responses.

4. Loosen up! Be flexible! Creativity is called for!

5. As you devise each item, consult the Check List for Evaluating Test Items to make sure the items meet all the standards.

6. The following item is illustrative of the desired format for a multiple-choice item:

   Purpose of test item #1: To measure if students have learned that unreliability of scoring essay questions is the chief reason for their diminished use.

   Item #1. During a parent-teacher conference a parent says to you, "I don't see why you teachers

don't use essay questions any more. In my day we used to spend all day writing answers to questions like 'Discuss the reign of King Henry VIII.'" What would be the most accurate reply to this parent?

A. "It would take too much time for teachers to score."

B. "Pupils who were fast writers had an unfair advantage in tests of that type."

C. "Teachers are able to 'play favorites' and unconsciously give the best grades to the pupils they like."

D. "Essay questions tended to encourage cheating because the fewer number of essay questions would be remembered and passed from class to class."

*E. "The same essay answer would receive different grades from different teachers and from the same teacher at different times."

7. The essay question must be accompanied by the complete directions for scoring. This means that you must state how much credit you will give for each of the specific type of responses you desire and give a sample answer for each.

Example Form for Essay Question:

Purpose of test item #2: To measure if students can apply the definition of learning to a concrete situation.

Item #2: On September 14 you taught your class that Albany was the capital of New York. What procedure could you have used to show that a pupil in your class had learned this fact on September 14?

Answer to Item #2:

Give 2 points credit if student's answer indicates a procedure for identifying some change of behavior before and after the September 14 experience.

(A sample answer worth 2 points)

---

*Correct response

"On September 13, I asked Johnny what the capital of New York was and he replied, 'I don't know.' On September 15, I asked the same question and he replied, 'Albany.'"

Give 1 point credit if student's answer indicates a procedure for identifying any observable behavior following the September 14 experience but neglects to indicate change.

(A sample answer worth 1 point)

"After teaching my class, I would give a test and ask, 'What is the capital of New York?' If most of the class wrote 'Albany,' I would know they had learned."

Give 0 points if student's answer fails to specify a procedure for collecting a sample of their behavior.

(A sample answer worth 0 points)

"If they knew the capital of New York was Albany."

The preceding was simply an example of the format of how your essay question might be constructed. Naturally your question will be much different and will measure your own objectives. Just be sure you include specific sample answers to illustrate how you would score possible answers.

ED 200 - Krumboltz

Check List for Evaluating Test Questions

	Max. for yes	Multiple choice #1 #2 #3	Es-say
1. Is the stated purpose of the test item also one of the purposes of the course?	5		
2. To answer the item correctly, must the pupil make one or more of the types of responses listed in the course objectives?	5		
3. If a pupil incorrectly answered this item, would you say he probably had not achieved one of the aims of the "course"?	5		
4. Does this item really measure something important and worth while?	5		
5. Does the test question make it perfectly clear what is expected?	3		
6. Does the test question require the pupil to make some application rather than repeat memorized words?	3		
For Multiple-Choice Questions Only 7. Is one and only one alternative clearly the "best" or "most correct" answer?	3		X
8. Would the incorrect alternative seem plausible to a person who has not yet attained the specific objective measured by this item?	3		X
9. Is the correct alternative roughly the same length as the incorrect alternatives?	2		X
10. Is the item written so pupils do not receive an unintended clue from either the grammatical structure or dependent alternative?	2		X
For Essay Question Only 11. Have the ideas for which credit will be given been specified in advance?	4	X X X	
12. It is clear how much credit each type of response will receive?	2	X X X	
13. Have expected illustrative answers for various degrees of quality been provided?	4	X X X	

ED 200

Fifth Written Assignment

Simulated Teaching Group

Myself as a Teacher

Now that you have completed your simulated teaching experience, you are going to have an opportunity to do some serious thinking about such questions as the following:

a. Was I successful in achieving the objectives of my lessons?
b. What types of changes would I make if I were to teach this lesson again?
c. What, to you, were the most important psychological principles or insights learned during this experience?
d. How has this series of papers and the actual teaching of a lesson influenced my thinking about the role of a teacher?
e. How has this experience influenced my feelings about myself as a teacher?

In other words, this paper should bring together a synthesis of your reactions and feelings toward the simulated teaching experience as perceived by you.

NOTE: All four previous written assignments are to be handed in with this final paper and will be retained by your instructor.

Please use the following outline:

I. General Evaluation

On the basis of your actual simulated teaching experience and the pupil evaluation sheets, comment briefly on the effectiveness of the following and how you would change them if you were to do this again.

A. Objectives
B. Teaching Concepts
C. Teaching Skills
D. Teaching for Transfer
E. Teaching for Retention
F. Test Items

II. What, to you, were the most significant psychological principles or insights learned during the experience? Tell why you felt these were significant to you?

III. Discuss how this experience has influenced your thinking about the role of a teacher in the classroom.

IV. Discuss how this experience has influenced your feelings about you as a teacher.

APPENDIX I

SIMULATED TEACHING QUESTIONNAIRE

ED 200

SIMULATED TEACHING QUESTIONNAIRE

NAME:_____ STUDENT NO.:_____ INSTRUCTOR: _____

Use the attached IBM sheet for the multiple choice items and this sheet for the written answers.

1. In relation to all the other experiences in ED 200, the Simulated Teaching experience was:
   1. The most beneficial aspect of the course
   2. One of the most beneficial aspects
   3. Contributed about as much to the course as other aspects
   4. Contributed little to the course
   5. Contributed very little or nothing to the course

2. In terms of your growth as a future teacher, the Simulated Teaching experience has:
   1. Contributed very greatly
   2. Contributed greatly
   3. Contributed somewhat
   4. Contributed little
   5. Contributed very little

3. In terms of helping you understand psychological principles, the Simulated Teaching experience was:
   1. Extremely important
   2. Very important
   3. Of some importance
   4. Of little importance
   5. Of very little or no importance

4. The series of papers completed in connection with the Simulated Teaching experience were:
   1. Very helpful in terms of learning psychological principles
   2. Helpful
   3. Somewhat helpful
   4. Not very helpful
   5. Little or no help

5. In terms of my feelings about teaching as a future career, the Simulated Teaching has:

   1. Affected me very much
   2. Affected me quite a lot
   3. Affected me some
   4. Affected me slightly
   5. Affected me very little

Answer questions 6 through 15 on the basis of the following key:

In terms of understanding concepts and principles of Educational Psychology, the Simulated Teaching experience helped me in the following areas:

NOTE: Place answers on the IBM sheet in the following manner:

1. Very helpful
2. Helpful
3. Somewhat helpful
4. Not very helpful
5. Little or no help

6. Individual differences
7. Readiness
8. Discipline in the classroom
9. Teaching of skills
10. Teaching of concepts
11. Use of reinforcement
12. Classroom motivation
13. Testing pupil progress
14. Role of the teacher
15. Stating objectives in behavioral terms

ANSWER THE FOLLOWING QUESTIONS ON THIS SHEET--USE THE BACK IF NECESSARY

When you presented your "lesson" in the Simulated Teaching Situation:

(Time in minutes)

How many "pupils" did you teach? _____

How long were you actually teaching in front of the "class"? _____

What grade level were you teaching to? _____

What subject were you teaching? _____

The most beneficial aspect(s) of the Simulated Teaching experience was (were):

The most undesirable aspect(s) of the Simulated Teaching experience was (were):

Of the five papers completed during the term, which of them helped you most in your understanding of psychological principles, which helped you next most, etc.? (Rank the following five papers from 1 (most valuable) to 5 (least valuable.)

Objectives in Simulated Teaching _____

Teaching Concepts and Skills _____

Insuring Transfer and Retention _____

An Achievement Test _____

Myself as a Teacher _____

APPENDIX J

CLASSROOM OBSERVATION QUESTIONNAIRE

ED 200

OBSERVATION QUESTIONNAIRE

NAME:_____ STUDENT NO.:_____ INSTRUCTOR:_____

Use the attached IBM sheet for the multiple choice items and this sheet for the written answers.

1. In relation to all the other experiences in ED 200, the Weekly Observation experience was:
   1. The most beneficial aspect of the course
   2. One of the most beneficial aspects
   3. Contributed about as much to the course as other aspects
   4. Contributed little to the course
   5. Contributed very little or nothing to the course

2. In terms of your growth as a future teacher, the Weekly Observation experience has:
   1. Contributed very greatly
   2. Contributed greatly
   3. Contributed somewhat
   4. Contributed little
   5. Contributed very little

3. In terms of helping you understand psychological principles, the Weekly Observation experience was:
   1. Extremely important
   2. Very important
   3. Of some importance
   4. Of little importance
   5. Of very little or no importance

4. The series of papers completed in connection with the Weekly Observation experience was:
   1. Very helpful in terms of learning psychological principles
   2. Helpful
   3. Somewhat helpful
   4. Not very helpful
   5. Little or no help

5. In terms of my feelings about teaching as a future career, the Weekly Observation Experience has:

   1. Affected me very much
   2. Affected me quite a lot
   3. Affected me some
   4. Affected me slightly
   5. Affected me very little

Answer questions 6 through 15 on the basis of the following key:

In terms of understanding concepts and principles of educational psychology, the Weekly Observation experience helped me in the following areas:

NOTE: Place answers on the IBM sheet in the following manner:

1. Very helpful
2. Helpful
3. Somewhat helpful
4. Not very helpful
5. Little or no help

6. Individual differences
7. Readiness
8. Discipline in the classroom
9. Teaching of skills
10. Teaching of concepts
11. Use of reinforcement
12. Classroom motivation
13. Testing pupil progress
14. Role of the teacher
15. Stating objectives in behavioral terms
16. On the basis of your short acquaintance with your observation teacher, in which of the following categories would you place him or her?

    1. An outstanding teacher
    2. An above average teacher
    3. An average teacher
    4. A below average teacher
    5. A poor teacher

ANSWER THE FOLLOWING QUESTIONS ON THIS SHEET--USE THE BACK IF NECESSARY

Approximately how much total time did you spend talking individually with your observation teacher throughout all the observations? (Circle your answer on this sheet.)

1. A total of 3 or more hours
2. A total of 2 to 3 hours
3. A total of 1 to 2 hours
4. A total of one-half to one hour
5. A total of 5 to 30 minutes
6. A total of less than 5 minutes

Name of observation teacher: _____

School: _____

Subject: _____ Grade: _____

Total amount of time spent inside classroom each week (in minutes): _____

Number of times you observed (this will not affect your grade):

_____

Although the following activities were not an expected part of the Weekly Observation experiences, did you have an opportunity to: (Please estimate the approximate total amount of time spent (in minutes) in each of the following types of activities.)

a. Teach a lesson to the class? _____
b. Work with a small group of pupils? _____
c. Work with individual students? _____
d. Work with your observation teacher individually in grading papers, assisting with records, etc.? _____
e. Administer a test to the class? _____
f. Other: List any other activities with the approximate amount of time.

The most beneficial aspect(s) of the Weekly Observation experience was (were):

The most undesirable aspect(s) of the Weekly Observation experience was (were):

Of the five papers completed during the term, which of them helped you most in your understanding of psychological principles, which helped you next most, etc. (Rank the following five papers from 1 (most valuable) to 5 (least valuable).

Objective in Simulated Teaching ___ An Achievement Test ____
Teaching Concepts and Skills ___ Myself as a Teacher ____
Insuring Transfer and Retention ___

APPENDIX K

INDIVIDUAL CELL MEANS AND STANDARD DEVIATIONS FOR CLASSROOM OBSERVATION AND SIMULATED TEACHING GROUPS ON THE CRITERION INSTRUMENTS

TABLE a: Course Grade
b: Final Examination
c: Minnesota Teacher Attitude Inventory
d: Career Plans Questionnaire
e: Redwood School Test
f: Course Evaluation Scale

Table a. Individual Cell Means and Standard Deviations for Simulated Teaching and Classroom Observation Groups on Course Grades

		Instructor					
		A	B	C	D	E	Total
Classroom Observation Group	N	33	20	21	36	35	145
	M	29.36	30.10	27.91	29.22	26.26	28.57
	SD	6.32	6.41	6.03	7.83	6.55	6.63
Simulated Teaching Group	N	21	36	35	22	21	135
	M	29.38	28.00	28.79	30.41	29.52	29.22
	SD	5.70	6.21	7.60	7.70	7.28	6.90
Total	N	54	56	56	58	56	280
	M	29.37	29.05	28.35	29.82	27.89	28.90
	SD	6.01	6.31	6.82	7.77	6.92	6.77

Table b. Individual Cell Means and Standard Deviations for Simulated Teaching and Classroom Observation Groups on Final Examination

		Instructor					
		A	B	C	D	D	Total
Classroom Observation Group	N	33	20	21	36	35	145
	M	67.27	70.90	63.86	66.78	64.00	66.56
	SD	9.15	7.29	11.62	10.33	8.10	9.30
Simulated Teaching Group	N	21	36	35	22	21	135
	M	67.91	67.67	66.74	68.45	67.43	67.64
	SD	7.76	9.87	12.26	11.22	10.45	10.31
Total	N	54	56	56	58	56	280
	M	67.59	69.28	65.30	67.62	65.72	67.10
	SD	8.46	8.58	11.94	10.78	9.28	9.81

Table c. Individual Cell Means and Standard Deviations for Simulated Teaching and Classroom Observation Groups on Minnesota Teacher Attitude Inventory

		Instructor					
		A	B	C	D	E	Total
Classroom Observation Group	N	33	20	21	36	35	145
	M	155.67	148.75	149.14	143.22	144.17	148.19
	SD	34.29	32.91	27.30	31.95	28.00	30.89
Simulated Teaching Group	N	21	36	35	22	21	135
	M	140.57	148.89	135.68	145.86	139.81	142.16
	SD	32.73	34.59	29.78	20.86	30.38	29.67
Total	N	54	56	56	58	56	280
	M	148.12	148.82	142.41	144.54	141.99	145.18
	SD	33.51	33.75	28.54	26.40	29.19	30.28

Table d. Individual Cell Means and Standard Deviations for Simulated Teaching and Classroom Observation Groups on Career Plans Questionnaire (Post)

		Instructor					
		A	B	C	D	E	Total
Classroom Observation Group	N	33	20	21	36	35	145
	M	30.49	32.25	29.91	31.03	30.91	30.91
	SD	5.53	3.67	4.81	5.45	4.46	4.78
Simulated Teaching Group	N	21	36	35	22	21	135
	M	31.24	32.72	29.19	27.50	29.76	30.08
	SD	5.29	4.67	6.23	7.57	4.07	5.57
Total	N	54	56	56	58	56	280
	M	30.86	32.48	29.55	29.26	30.34	30.50
	SD	5.41	4.17	5.52	6.51	4.27	5.18

Table e. Individual Cell Means and Standard Deviations For Simulated Teaching and Classroom Observation Groups on Redwood School Test

		Instructor					
		A	B	C	D	E	Total
Classroom Observation Group	N	33	20	21	36	35	145
	M	78.52	80.40	77.14	79.89	77.43	78.68
	SD	14.25	8.39	17.71	9.12	7.58	7.14
Simulated Teaching Group	N	21	36	35	22	21	135
	M	77.86	82.75	79.88	77.73	82.81	80.21
	SD	6.57	8.01	8.03	7.47	5.64	11.41
Total	N	54	56	56	58	56	280
	M	78.19	81.58	78.51	78.81	80.12	79.44
	SD	10.41	8.20	12.87	8.30	6.61	9.28

Table f. Individual Cell Means and Standard Deviations For Simulated Teaching and Classroom Observation Groups on Course Evaluation Scale

		Instructor					
		A	B	C	D	E	Total
Classroom Observation Group	N	33	20	21	36	35	145
	M	36.33	36.00	38.86	35.97	28.83	35.20
	SD	6.83	7.73	5.09	6.66	6.94	6.65
Simulated Teaching Group	N	21	36	35	22	21	135
	M	34.81	36.58	36.09	35.50	30.14	34.62
	SD	7.11	7.51	5.46	5.88	5.89	6.37
Total	N	54	56	56	58	56	280
	M	35.57	36.29	37.48	35.74	29.48	34.91
	SD	6.97	7.62	5.28	6.27	6.42	6.50

APPENDIX L

CHI SQUARE ANALYSIS OF OBSERVATION AND SIMULATED TEACHING GROUP RESPONSES TO ITEMS FOR CPQ (PRE) AND CPQ (POST) TESTS

Table a. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 1 for the CPQ (Pre) and CPQ (Post) Tests.

Type of Changes	Groups	
	Obs.	Sim. T.
Positive	31	28
No	90	74
Negative	14	19

Table b. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 2 for the CPQ (Pre) and CPQ (Post) Tests.

Types of Changes	Groups	
	Obs.	Sim. T.
Positive	24	21
No	86	74
Negative	25	26

Table c. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 3 for the CPQ (Pre) and CPQ (Post) Tests.

Type of Changes	Groups	
	Obs.	Sim. T.
Positive	27	26
No	89	76
Negative	19	19

Table d. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 4 for the CPQ (Pre) and CPQ (Post) Tests.

Type of Changes	Groups	
	Obs.	Sim. T.
Positive	30	28
No	74	71
Negative	31	21

Table e. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 5 for the CPQ (Pre) and CPQ (Post) Tests.

Type of Changes	Groups	
	Obs.	Sim. T.
Positive	28	21
No	80	74
Negative	27	26

Table f. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 6 for the CPQ (Pre) and CPQ (Post) Tests.

Type of Changes	Groups	
	Obs.	Sim. T.
Positive	23	17
No	78	82
Negative	34	22

Table g. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 7 for the CPQ (Pre) and CPQ (Post) Tests.

Type of Changes	Groups	
	Obs.	Sim. T.
Positive	27	17
No	91	82
Negative	17	22

Table h. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 8 for the CPQ (Pre) and CPQ (Post) Tests.

Type of Changes	Groups	
	Obs.	Sim. T.
Positive	30	31
No	67	61
Negative	38	29

Table i. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 9 for the CPQ (Pre) and CPQ (Post) Tests.

Type of Changes	Groups	
	Obs.	Sim. T.
Positive	26	19
No	102	94
Negative	7	8

Table j. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 10 for the CPQ (Pre) and CPQ (Post) Test.

Type of Changes	Groups	
	Obs.	Sim. T.
Positive	26	24
No	81	78
Negative	28	19

APPENDIX M

CHI SQUARE ANALYSIS OF OBSERVATION AND SIMULATED TEACHING GROUP RESPONSES TO ITEMS ON THE OBSERVATION AND SIMULATED TEACHING QUESTIONNAIRE

Table a. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 1 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	102	61
3, 4, 5	42	71
No Response	1	3

Table b. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 2 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	101	54
3, 4, 5	43	79
No Response	1	2

Table c. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 3 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	67	37
3, 4, 5	77	96
No Response	1	2

Table d. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 4 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	82	96
3, 4, 5	62	37
No Response	1	2

Table e. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 5 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	96	63
3, 4, 5	48	70
No Response	1	2

Table f. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 6 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	102	60
3, 4, 5	42	73
No Response	1	2

Table g. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 7 on the Observation and Simulated Teaching Questionaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	74	58
3, 4, 5	69	75
No Response	2	2

Table h. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 8 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	88	37
3, 4, 5	56	96
No Response	1	2

Table i. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 9 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	59	79
3, 4, 5	85	54
No Response	1	2

Table j. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 10 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	64	94
3, 4, 5	80	39
No Response	1	2

Table k. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 11 on the Observation and Simulated Teaching Questionnaire

Response Number	Group	
	Obs.	Sim. T.
1, 2	66	66
3, 4, 5	78	66
No Response	1	3

Table l. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 12 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	77	84
3, 4, 5	66	48
No Response	2	3

Table m. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 13 on the Observation and Simulated Teaching Questionnaire

Response Number	Group	
	Obs.	Sim. T.
1, 2	47	60
3, 4, 5	96	72
No Response	2	3

Table n. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 14 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1	49	47
2, 3, 4, 5	93	85
No Response	3	3

Table m. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 13 on the Observation and Simulated Teaching Questionnaire

Response Number	Group	
	Obs.	Sim. T.
1, 2	47	60
3, 4, 5	96	72
No Response	2	3

Table n. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 14 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1	49	47
2, 3, 4, 5	93	85
No Response	3	3

Table o. Chi Square Analysis of Observation and Simulated Teaching Group Responses to Item 15 on the Observation and Simulated Teaching Questionnaire

Response Number	Groups	
	Obs.	Sim. T.
1, 2	54	80
3, 4, 5	88	50
No Response	3	5