

A FEASIBILITY STUDY IN THE USE OF VIDEO TAPE
AND TELEPHONE CONFERENCES FOR THE SUPER-
VISION OF HOME ECONOMICS STUDENT
TEACHERS AT OKLAHOMA STATE
UNIVERSITY

By

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SCHOOLS AND PERSONS PARTICIPATING IN THE
PILOT AND IN THE FINAL STUDY

Schools:	Bartlesville High School Sapulpa High School Shattuck High School Sulphur High School
Superintendents:	Mr. Calvin Agee Mr. Earl Hamon Mr. Virgil McGee Dr. Thomas Palmer
Principals:	Mr. John Cockrum Mr. George Duke Mr. John Haley Mr. Joe Howard
Cooperating Teachers:	Mrs. Eunice Gordon Mrs. Jane Lingo Miss Frances Stamper Miss Mildred Vaughan
Student Teachers:	Miss Mickolyn Jeffery Miss Kathy Morrow Mrs. Peggy Overstreet Miss Rogene Price Miss Rose Marie Shaw Miss Jane Shumate Miss Valetia Stephens Miss Marcia Warden

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CHAPTER I

INTRODUCTION

Student teaching is a process whereby a prospective teacher gains teaching experience while being actively involved in a classroom situation. Prior to this experience, the student is enrolled in subject matter and educational course work in preparation for the teaching of students. During the educational experience, the student teacher is observed and evaluated by her cooperating teacher in the center and her supervisor from the university campus. Two recent developments are to have some effect on present methods of teacher preparation. They are: (1) an increasing college enrollment, and (2) increasing availability of a variety of technological tools in education.

Student enrollment in teacher education programs in our nation's colleges and universities is expected to continue increasing. In a recent annual report, the belief that enrollment continues to grow was supported in the following excerpt:

Population data and other factors suggest that freshman increases through 1979 will be comparable to those in the last two years. Even though sharp percentage increases will be unlikely in any given year, the large enrollment base will mean an increase in total numbers each year that must be labeled as massive. Throughout the next decade, therefore, the nation and its higher education system will be called upon to serve a steadily increasing student body, and appropriate planning to that end deserves high national and institutional priority. (Parker, 1970, p. 41).

In this report, it was stated that "education freshmen were second only to nurses, with a percentage increase of 5.3%" in enrollment (Parker,

1970, p. 44). Today's apparent oversupply of teachers may become balanced with the construction of new schools and hiring of new faculties to accommodate the increasing population in the United States.

With increased college enrollment, the task of the university supervisor in teacher education is becoming more difficult. The advance of technology can perhaps lend itself to curtailing some of the problems. One tool of technology is the video tape recorder. Its place in education programs is described by Cooper and Seidman (1969, p. 19).

Teacher supervision is one key facet of a teacher education program which lends itself to radical revamping when the resources of videotape recorders are integrated into the process. Traditionally the process of supervision has involved a supervisor traveling to a teacher's classroom, sitting in the back of the room observing and taking voluminous notes, and meeting with the teacher some time after the class period to discuss his observation. This worn-out pattern of supervision has always suffered from the problems inherent to the procedure. For example, traveling to the schools where teachers are in training is time-consuming, and automatically reduces the amount of time and energy the supervisors can give to the teachers.

Two different reports have mentioned new aspects of modern society, i.e., increased college enrollment and developed technology, that can be examined and from which conclusions may be drawn in relation to education of future teachers. It is with the second aspect, technology, that this problem concerns itself.

Significance of the Problem

In the supervision of a student teacher, a judgment is applied to classroom performance by the cooperating teacher and the supervising teacher. Much research has been done on these kinds of observations and patterns of teacher classroom behavior, but less research can be found to indicate the effectiveness of these procedures in improving or changing classroom performance.

A product of technology--video tape--can now provide an opportunity for the self-confrontation essential to motivate change in the student's teaching behavior. Self-analysis through the use of video tape provides an opportunity for the student teacher to see herself as others see her. The direct approach by the supervisor is often lessened after the student teacher critiques her own teaching behavior and provides her own constructive criticism. Video tape and its use in the area of supervision of student teachers is the concern of this study.

Statement of the Problem

The purpose of this study is to investigate the feasibility of supervision of Oklahoma State University Home Economics student teachers in various centers in the state through the use of video tapes and telephone conferences. The investigation of feasibility was based on the following questions:

1. Assuming that video tape recording equipment serves a useful purpose in self-evaluation, how can the equipment be used in the supervision of student teachers?
2. Which supervision method provides the best experience for the student teacher--video tape recordings and telephone conferences alone or video tape recordings and visitation to the center combined?
3. Can changes be observed in student teacher behavior in the center using video tape recordings rather than visiting the center in person?
4. Is the cost of the video taping equipment in proportion to the cost of the traditional method of supervision, i.e., visitation to the center?

Basic Assumptions of the Study

1. University enrollment is expected to continue increasing.
2. The Home Economics Education Department will need to adjust the number of student teaching centers to meet the increased enrollment.
3. Supervision methods other than visitation will need to be identified and examined by university personnel.
4. Student teachers observe more aspects of their teaching behavior in self-evaluation after viewing video tape recordings than before viewing them (Riegel, 1968).
5. The initial cost and the operation costs of video tape recording equipment will be absorbed by the participating schools.

Objectives of the Study

In order to successfully investigate the feasibility of supervising home economics student teachers of Oklahoma State University through the use of video taped observations and telephone conferences for evaluation, it is necessary that the following objectives be accomplished:

- I. To become familiar with video taping equipment, the possibilities for use in student teaching centers, and to seek results of actual experimentation with the equipment in one selected school district.
- II. To select and train six student teachers to participate in the study of the use of video tape in the supervision of student teachers.
- III. To supervise Oklahoma State University Home Economics student teachers, with the researcher as the university supervisor, through video tapes and telephone conferences.

- IV. To experiment with supervision procedures in student teaching centers other than by the traditional visitation method.
- V. To observe and evaluate the change in teaching behavior and improvement of teaching skills of the student teacher during the experience based on Riegel's self-evaluation rating scale.
- VI. To compare a limited financial statement and an estimate of the expenditure in time of two methods of supervision of student teachers.

Procedure for the Study

Objective I

1. The supervisor, as researcher, will complete a list of the student teaching centers, stating whether or not the district owns video tape equipment. Three methods will be used:
 - a. survey the cooperating teachers at an annual conference for cooperating teachers held during the first semester.
 - b. contact two state companies that distribute video tape equipment to state school districts to determine those centers owning equipment.
 - c. contact each school district by telephone to determine whether or not the school district owns video taping equipment.
2. The researcher will help with the operation of the video taping equipment in the Techniques and Materials in Home Economics Education class where the equipment is used to video tape demonstrations and presentations of each student teacher. As another method of becoming familiar with the operation of the equipment, the researcher will participate in a workshop sponsored by the local

school district to train educators in the use of video taping equipment.

3. The researcher, as university supervisor, will experiment with video tape recording equipment in one of the student teaching centers in the spring semester, 1970. In addition to the two visits that were made in the traditional method of supervision, the student teachers will video tape each other and mail three tapes to Stillwater for the university supervisor to view on equipment located on the university campus. Each student teacher will be taped three times, approximately 25 minutes each time. These tapes will be discussed during a telephone conference between the student teacher and the supervising teacher.
4. After the seven weeks of student teaching, the supervisor and student teachers and the supervisor and cooperating teacher will discuss the use of video taping equipment during student teaching and a list of suggestions will be made to be used in further work with video tape recording equipment.

Objective II

1. During the first meeting of the semester of the class entitled Student Teaching in Home Economics, the researcher will meet with all those student teaching in the fall semester, 1970.
2. The video tape recording project will be explained, including the objectives of the study, the centers that will participate in the study, and the schedule for the seven weeks of student teaching that will be maintained for completion of the study.
3. All student teachers will be provided an opportunity to select their centers on a volunteer basis, knowing the three schools in

which the research project will be taking place.

4. After selection of the centers, the researcher will use every opportunity to become acquainted with the six student teachers. It will be possible to work with the student teachers in the techniques and materials class, providing them an opportunity to tape other members of the class as well as see themselves on video tape. All members of the class will be video taped, not just the six participating student teachers involved in the research project.
5. Each of the six student teachers will participate in a workshop given by a person experienced in the use of video tape recording equipment. The workshop will help them become familiar with the setting up and operation of the equipment. An operator's manual will be provided for the student teachers to use once they get to their respective student teaching centers since there will be a time lag between the workshop and the first taping session.

Objective III

1. The supervisor, as the researcher, will meet with the superintendent, principal, and cooperating teacher in each of the three participating high schools in the state of Oklahoma to seek approval of the project.
2. After the student teachers have been in the centers for approximately one and one-half weeks, they will video tape each other for 30 minutes. There are two student teachers in each student teaching center, so one will video tape the other, then reverse the procedure.
3. The cooperating teacher and the student teacher will view and evaluate the tape before sending it to the campus for the university

supervisor to view.

4. After receiving the video tapes, the supervising teacher will view and evaluate the tapes, using equipment owned by the local school district. After completing the viewing and evaluation of the video tapes, the supervisor will return the tapes by mail to the student teaching center for use in the next taping session. Each tape will be reused throughout the seven weeks of the project.
5. Through the use of long distance telephone calls, the supervising teacher and student teacher will communicate with each other concerning the taped sequence. These phone calls will be regularly scheduled during each week.
6. The supervisor will talk with the cooperating teacher by telephone approximately three times during the five weeks of video taping. During these telephone conferences, the progress of the student teacher will be discussed as well as suggestions made for further improvement by the student teacher.

Objective IV

1. The sample for this study will be based on the following criteria:
 - a. A school that
 - is located beyond a 100-mile radius of the university campus.
 - has an administration that is willing to participate and is interested in the study.
 - owns video tape recording equipment.
 - has a cooperating teacher who is willing to participate in the study.
 - b. A student teacher who
 - has volunteered to act as a subject in the study.
 - agrees to contribute to the evaluation of the study.

2. The three schools selected as the sample for this study are to be supervised in a different method. In order to experiment with different approaches to supervision, the following will be attempted:
 - a. Center A will not be visited by the supervisor during the data collecting period. The information obtained about the student teacher's performance will be gained from viewing the video tapes, the telephone conferences, and conferences with the cooperating teacher.
 - b. Center B will be visited once, late in the seven-week period.
 - c. Center C will be visited once, early in the seven-week period.
3. Suggestions will be made, based on the three variables, as to the best procedure to follow to supplement the use of video tape in supervision or to determine if the supplement is needed.

Objective V

1. Using a rating scale adopted from a Master's thesis entitled "Experimentation with the Videotape Recorder for Self-Evaluation of Student Teachers in Home Economics," by Adel Smith Riegel, Ohio State University, 1968, the supervisor will respond with a check mark in the space which most adequately describes the student teacher's ability as shown in the tapes. The following interpretation is given the scale by Riegel:
 - 4 -- Superior example, no work needed in this area
 - 3 -- Adequate, but could be better
 - 2 -- Needs work in this area
 - 1 -- Non-existent in lesson

2. From the rating scale, strengths and weaknesses can be determined and guidelines planned for the telephone conference.
3. By comparing the totals of the rating scales completed at the beginning and at the end of student teaching, changes in teaching behaviors will be identified.

Objective VI

1. This researcher will maintain an accurate record of expenditures for supervision through visitation to the student teaching center.
This one visit will be multiplied by two to obtain an estimate of the cost of two visits which would occur with the present system of supervision.
2. The cost of supervision by using video tape recording equipment and telephone conferences will be based on:
 - a. Cost of university WATS line (20.5 hours)
 - b. Video tape usage cost (15 hours)
 - c. Travel expenses
3. The expenditure of time for supervision will be based on:
 - a. Length of telephone conferences
 - b. Time required to view tapes
 - c. Travel time
 - d. Time required for visitation to school
4. A limited financial comparison and expenditure of time estimated for the two methods of supervision will be made to identify differences in the two systems.

Delimitations

1. This study will be limited to six student teachers of home economics in the state of Oklahoma. These teachers, students in the Department of Home Economics Education at Oklahoma State University, will complete their student teaching in the fall semester, 1970.
2. The estimation of cost in this study will be limited to telephone conferences, video tapes, and travel expenses and will not include initial purchase of the video tape recording equipment or the cost of operation of equipment.
3. The findings of the study will be limited to determining feasibility of an innovative method of supervision for Home Economics Education at Oklahoma State University with recommendations for future research.

Definition of Terms

Video tape equipment records audio and video portions of a sequence with a monitor used for playback.

Video tape is used to record a sequence for later playback. There are various brands and sizes of video tape but for this study Sony one-half-inch and Ampex one-inch were used.

Student teaching center is a school in the state of Oklahoma in which vocational home economics is a part of the curriculum selected by Oklahoma State University, Department of Home Economics Education, as a student teaching center.

Supervisor is a university home economics education faculty member or graduate student responsible for evaluation and supervision of student teachers.

Student teacher will be a senior student in Home Economics Education enrolled in HEED 4720, Student Teaching in Home Economics. She will be involved in a program that meets the requirements of the vocational home economics program in an off-campus center.

Visitation is the system of supervision in which the supervisor drives to the school and observes the student teacher for several periods. The evaluation is done at the end of the visitation verbally, with appropriate conferences with the cooperating teacher.

Cooperating teacher as used in this study is the vocational home economics teacher responsible for the guidance and evaluation of the student teacher during her seven weeks in the school. The cooperating teacher will have taken the course in supervision and participates regularly in the capacity of high school cooperating teacher.

WATS line refers to the Wide Area Telephone Service through the Oklahoma State University PBX system and allows long distance telephone calls to be made throughout the state from the university campus.

CHAPTER II

REVIEW OF LITERATURE

The majority of United States colleges and universities share a common format in programs preparing our future teachers. The undergraduate curricula provide both general education and professional education, including subject matter and education courses. The culmination of the undergraduate curricula--student teaching--is a period of practice which ranges in length from six weeks to one semester. The commonly held view of student teaching today is that it is the most important factor in the pre-service preparation of teachers (O'Hanlon, 1967). It is with this important aspect of teacher education that this review of literature deals.

The examination of literature will be limited to those items related to student teaching research. The chapter has been divided into three sections: a description of student teaching, the supervision of student teachers, and the use of videotape recordings in teacher education. It is with the last of these three sections that this study specifically concentrates.

Description of Student Teaching

Dressel (1970, p. 164) has described student teaching as

. . .the experience wherein the student has the opportunity to practice the science and the art of teaching. An opportunity should be provided for a student to try various methods and discover which methods and what material maximize his strengths while

giving him an opportunity to uncover and work toward correcting his weaknesses.

Although most everyone agrees that student teaching is the single most important aspect of teacher education, there appears to be some debate concerning issues and problems relating to student teaching.

Differing Opinions of Student Teaching

O'Hanlon (1967, p. 339) has charged teacher educators with "a certain over-protectiveness among student teaching personnel toward the patterns of existing student teaching programs."

He realizes that most colleges and universities face certain restrictions which inhibit "ideal" student teaching programs, but he maintains this is not justification for ignoring weaknesses within existing programs. The purpose of his paper was "to raise questions about the basic assumptions of current student teaching programs, especially of those for the training of secondary school teachers."

The assumptions O'Hanlon questions are:

1. The grade point average should be the sole or primary determinant in selection for student teaching.
2. The laboratory experiences needed by the teacher-in-training can be provided through a concentrated student teaching experience.
3. Almost any experienced teacher can do a satisfactory job of supervising student teachers.
4. Secondary student teaching supervision by the college can be best accomplished by the general college supervisor.
5. Colleges are justified in asking the public schools to have their better teachers allow their classes to be taught by student teachers.
6. Student teaching should culminate as early as possible in the assumption of full responsibility by the student teacher.

Although O'Hanlon's questions about the six assumptions are all important, it is number four that requires further explanation in relation to this study. He maintains the general university supervisor is faced with the difficult task of trying to be of help to teachers in

many different fields. It is obvious that the contribution the supervisor can make to teachers in some fields and on some age levels is limited. His recommendation is for subject-area supervision by university personnel. Although this system may be more expensive and difficult to schedule, it would provide both the cooperating teacher and the student teacher with more specific help.

As teacher education programs continue to grow, the problems of cost and scheduling faculty members will continue to increase. What are some alternative methods of supervision of student teachers when there becomes a shortage of subject-area university supervisors?

In James B. Conant's The Education of American Teachers another opinion of student teaching is expressed. Conant believes his concept of the clinical professor will further the process of reforming American teacher education. He proposes "the employment of a talented professional person who can integrate methods and practice teaching and who can demonstrate his trade masterfully and regularly in concrete teaching situations" (Alilunas, 1969).

Conant recommends for the improvement of the quality of student teaching the employment of only the most competent cooperating classroom teachers and encouraging them by reducing their work loads and raising their salaries. Combining the traditional roles of cooperating teacher and university supervisor, the clinical professor would remain a member of the staff of the elementary or secondary school but would also be a member of the education faculty in the university where he would be responsible for the supervision of student teaching and the special methods course for a certain group of students.

Since the publication of his book, Conant has stated that he did

not intend for his recommendations to be adopted in toto but hoped his ideas might be adapted by university personnel to fit their particular needs (Alilunas, 1969).

If the idea of the clinical professor would combine the responsibilities of the cooperating teacher in the school and the university supervisor from the campus, how might the use of modern technology reduce the burden of one person carrying out the responsibilities of two people?

Jordan (1967, p. 139) has stated a third opinion of student teaching. He believes that one of the greatest weaknesses in the student teaching program lies in evaluation of student teachers. He maintains that the major purpose of evaluation "should be that of stimulating and guiding the growth and development of the teacher-to-be."

After recognizing the purpose of evaluation, Jordan describes steps to take in improving student teaching evaluation:

1. Begin with the goals
2. Identify behavior that will demonstrate attainment of the objectives
3. Evaluation should be continuous
4. Emphasize self-evaluation
5. Evaluation should be cooperative
6. Evaluation should focus on performance
7. Final evaluation should summarize student teacher's attainment (1967, p. 141)

In step number four, dealing with self-evaluation, it is the task of the supervising teacher to help the student teacher develop accuracy in appraising and evaluating his own performance. Tape recorders and video tapes of the student teacher's performance have been successfully used to help the student teacher increase the accuracy of self-evaluation.

Jordan recommends that "throughout the student teaching experience

emphasis should be on helping the student teacher to enlarge upon and increase the accuracy of his own evaluation of performance" (Jordan, 1967, p. 141). What supplementary methods or equipment could be used by the supervising and/or cooperating teacher to increase the student teacher's ability to evaluate his own performance through self-evaluation?

The review of the three articles on student teaching has posed three questions:

1. What are some alternative methods of supervision of the student teacher?
2. Can modern technology be useful in promoting Conant's "clinical professor" concept?
3. What methods can be used to increase the student teacher's ability to evaluate his own performance through self-evaluation?

With these questions as a frame of reference, the findings of literature relating to them will be found in Sections II and III of this chapter.

Supervision of Student Teachers

Methods of supervision are found as early as 1823 when the first "teacher seminary" in the United States was established by Hall in Concord, Vermont. The seminary included a "model school" which provided opportunities for observation and teaching "model lessons" which the critic teacher appraised. During the era of the normal school, practice teaching constituted an important aspect of the last school term. Since this time, supervision of student teachers has been part of the teacher education programs in the United States (Sharpe, 1965, p. 33).

What is the goal of supervision? It would seem that the goal should be modification of behavior. In the case of supervision of student teachers, it could be expected that the college supervisor or cooperating teacher would motivate the novice "to do or say something differently than he did prior to supervision" (Koran, 1969, p. 754).

The literature reveals agreement on the goal of supervision. The literature, however, does not agree completely on the assignment of responsibilities in supervision. The following section will discuss literature as it relates to the roles of the cooperating teacher and university supervisor with a description of the traditional method of supervision involving classroom visitation and observation.

In the review of literature, the term "university supervisor" will be used to identify "the college representative who is responsible for supervising a student teacher or a group of student teachers" (AST, 1964). The "cooperating teacher" is one who teaches children or youth and who also supervises student teaching and/or other professional laboratory experiences (Jones, 1970, p. 433).

The Role of the Cooperating Teacher in Supervision

Statistics reveal that currently more than 150,000 regular classroom teachers cooperate with nearly 1,200 colleges to provide student teaching experiences for more than 200,000 students (Monson, 1970, p. 45). The cooperating teacher is seen by the student, and teacher educators, as the most important single influence on the student teacher (Rabin, 1959, p. 2). This influence is possible because of the day-to-day relationship that develops between the student teacher and the cooperating teacher.

A review of the tasks of the cooperating teacher may explain this relationship. Ideally, the cooperating teacher takes time to confer, both on a formal and informal basis, about the accomplishments of the student teacher. She gives specific help in planning, selecting classroom materials, developing teaching methods, and evaluating students' learning. The student teachers are considered "co-workers" in the staff group, introduced to this situation by the cooperating teacher. It is the responsibility of the cooperating teacher to create an opportunity for the student teacher to carry the main responsibility for the guidance of her students. In the role of teacher educator, the cooperating teacher analyzes the accomplishments and needs of the student teacher (Stratemeyer, 1958).

Webster (1965) has defined three critical stages of growth in the student teaching process. Success in student teaching depends largely upon the skill of the cooperating teacher to guide the student teacher through:

- a. his orientation to the school and the class

- b. his induction into teaching

- c. his assumption of full responsibility for the class.

Orientation may sometimes bring confusion and anxiety to the student teacher. The cooperating teacher can help the student teacher overcome the initial nervousness by introducing him to the school and its procedures as quickly as possible.

Induction, or "the student teacher's involvement in the teaching process," can be either gradual or immediate, depending on the maturity and preparation of the student teacher. The cooperating teacher must be sure the class is prepared for the transfer of leadership.

Assumption of full responsibility will be the most important phase for the student teacher. During this period, the cooperating teacher performs two major functions: guidance and evaluation. The tasks include:

1. appraising the strengths and weaknesses of the student teacher.
2. reviewing the unit and lesson plans and to make sure the student teacher is prepared before each class.
3. conferring with the student teacher concerning any specific problems.
4. providing feedback from frequent evaluations and to convey perceptions of his teaching to him. (1965, p. 38).

It is a fact that cooperating teachers play a key role in teacher education. There is little evidence in the literature about their effectiveness or the quality of supervision they provide for student teachers.

Lowther (1968) collected data from 250 male and female senior level student teachers at the University of Michigan. On a prepared questionnaire, they were asked to describe in detail what were the most and least helpful activities of their cooperating teachers.

The most helpful activities were classified into four areas and are mentioned below in order of frequency:

1. The latitude of behavior allowed the student teacher in the classroom.
2. The specific counsel (including assignment orientation) given to the student teacher by the cooperating teacher.
3. The quality of the relationship between the student teacher and the cooperating teacher.
4. The performance evaluation of the student teacher made by the cooperating teacher.

Lowther's evidence supports Webster's "three critical stages of growth" as being in agreement with the opinions of student teachers regarding the most helpful activities of the cooperating teachers. The latitude of behavior allowed the student teacher (Webster's stage two) was first in order of frequency when described by student teachers.

The need for orientation (Webster's stage one) was second in order of frequency. The performance evaluation (Webster's stage three) was fourth in order of frequency.

The evidence suggested a number of practices which might be employed to facilitate the objectives of student teaching:

1. Student teachers respond more favorably to a nonrestrictive but controlled climate of supervision.
2. Cooperating teachers should be selected who have sufficient confidence in their teaching objectives and methods to share them in detail with the student teacher.
3. A professional relationship containing generous amounts of trust, support, understanding and consideration should be established by the cooperating teacher.
4. Student teachers want more effective performance evaluation and feedback from cooperating teachers.
5. Many teachers are highly skilled in performing a particular teaching activity and student teachers should be allowed an opportunity to observe the performance of the speciality. (Lowther, 1968, p. 42).

In summary, the cooperating teacher is involved in three critical stages of the development of a prospective teacher. They are orientation to the situation, induction into teaching, and assumption of full responsibility for teaching. The cooperating teacher "sets the example of what a real teacher is in all his relationships with the student teacher and he knows how and when to help the student teacher learn specific techniques in working with students" (Kingsley, 1966, p. 401). The literature reveals a trend to placing more responsibility for the supervision of student teachers on the school cooperating teacher and less responsibility for actual "supervision" on the university supervisor. What, then, is the role of the university supervisor?

The Role of the University Supervisor in Student Teaching

As colleges and universities in the United States are faced with larger numbers of student teachers and longer periods of student

teaching, the impossibility of providing one or two visits to the centers under the present system of university supervision has been recognized. Cumming (1970) conducted a survey of 35 selected colleges and universities in the states of Illinois, Michigan, Minnesota, and Wisconsin to help with the development of a formula for the supervisory load. (The formula is available in the reference.) It was interesting to note the wide variations in the responses.

The survey indicated that 350 college supervisors were performing their functions on a part-time basis while 38 were full-time. The number of student teachers assigned to college supervisors ranged from 5 to 25 and the required number of visitations ranged from 3 to 12 for a student teaching period. The time spent in a supervisory visit with a student teacher varied from 30 minutes to 3 hours (average $1\frac{1}{2}$ hours), and the conferences with the supervisory teacher lasted from 15 minutes to 2 hours (average 39 minutes). (Cumming, 1970, p. 438).

These ranges in results indicate a wide diversity in activities of the teacher education programs. The Standards of the National Association for Colleges of Teacher Education fail to set forth any limitations that might narrow basic requirements for directors in teacher education.

The National Council for Accreditation of Teacher Education (NCATE) has guided, but has not been specific in, their "Standards." The result has been a great variety of student teaching programs. A review of the literature relating to these student teaching programs reveals some interesting trends in supervision.

Bennie (1964), in a study at the University of Texas, mailed questionnaires to 223 first year teachers who had graduated in the student teaching program the year before. Of the 171 replies, there were 71 elementary teachers and 100 secondary teachers.

In the judgment of the former student teachers, the amount of supervisory help from both supervisory sources (university supervisor and classroom cooperating teacher) were approximately the same with "slightly more help being indicated from the campus supervisor than from the classroom cooperating teacher" (Bennie, 1964, p. 131). It should be noted that the university supervisor meets with the student teachers at the University of Texas once per week for a conference. These conferences are possible on a weekly basis because the student teachers are placed within the city where the University is located. The conferences were the most valuable supervisory technique employed by the campus supervisor. The second most valuable supervisory technique was classroom visitation, although utilized by the smallest number of supervisors. The student teachers felt most help was provided in self-evaluation, planning various aspects of the teaching act, and in adjusting to the teaching role. Least help was provided in evaluation and grading and in the selection of teaching materials and content to be covered.

The two most valuable techniques utilized by the university supervisors of the University of Texas were the supervisory conferences and the classroom visitation. The supervisory conference is the most critical point in supervision and is the point where the supervisor either succeeds or fails in bringing about improvement in the student teacher's performance (Hinckley, 1970, p. 33). Another source states "classroom visitation is probably the most important aspect of educational supervision" (Woodward, 1965, p. 41). It would seem, however, from the evidence collected by Bennie that much help can be received through a

supervisory conference held away from the classroom situation without a traditional visit made to the school by the university supervisor.

At this point in the literature, there seems to be varying opinions on the roles of the university supervisor. Three studies will be mentioned, two completed in 1967 and one completed in 1970.

Neal (1967) surveyed former student teachers from Southern Illinois University to find out if the roles of university supervisors were to furnish direction and critical evaluation, as had been accepted by the department for previous years. Their results showed that these were not the basic roles desired by university supervisors (1967, p. 24).

Free responses to the questions were received from university supervisors, student teachers, administrators and cooperating teachers. The study was centered around each role in two ways: (1) an analysis of the response to a role and (2) a synthesis and interpretation of what the respondents stated about the role. Following is the list of roles:

- Role 1 - Liaison
- Role 2 - Helping Student Teachers
- Role 3 - University Responsibility to Student Teacher
- Role 4 - Cooperative Effort
- Role 5 - Acquainting and Interpreting the Student-Teaching Program to the Cooperating Public School Teacher
- Role 6 - Evaluation of the Program in the Public School and of the Student Teacher's Work
- Role 7 - Continuity of Program and Structure
- Role 8 - Resource Person
- Role 9 - Preventive Supervision
- Role 10 - Public Relations
- Role 11 - Placement

Neal drew six conclusions from his study of university supervision.

The conclusions are:

1. The respondents feel that it is the responsibility of the university to provide a system of supervision which will insure the highest quality of a student-teaching program.

2. Administrators do not want the student-teaching program in their schools without adequate supervision from the university.
3. According to the results, all four groups place the greatest emphasis of supervision on the liaison role of the university supervisor.
4. The group of university supervisors identify, on the average, many more roles for the university supervisor than any of the other three groups, roles in which university supervisors of student teachers should be competent.
5. A number of the public school administrators and cooperating teachers mention that classroom supervision, consisting of direction and critical evaluation of student teachers, should not be the role of university personnel. They point out that this part of the work actually belongs to the local cooperating teacher.
6. Assuming the traditional role image of the university supervisor is that of giving direction and critical evaluation of the student teacher, the researchers involved hypothesize that the respondents of the four groups attach little or no significance to the traditional role. This hypothesis is based on the realization that not one single group identified such a role for the university supervisor. (1967, p. 27).

Dirks (1967) and others completed a study dealing specifically with Home Economics Education. It was a cooperative effort of Cornell University, The University of Missouri, The Ohio State University and Purdue University. The teacher educators identified the contributions of the college supervisor to the student teaching situation. Those participating in the study were university supervisors, cooperating teachers and student teachers. The administration was not included in the report. The three groups were asked to report behaviors which might make the difference between success or failure in the student teaching situation. The results were categorized in the following terms:

1. roles of the college supervisor
2. the direction of change in the student teaching situation
3. uniqueness or nonuniqueness of the college supervisor's behavior
4. the impact of the college supervisor's behavior on the cooperating teacher and the student teacher

The behavior of college supervisors did not occur with equal frequency under the role categories of security-giving, information-giving, stimulating-growth or strengthening relationships. The university supervisors assumed the information or judgment-giving roles more than any other although stimulating-growth role was reported several times. Their behaviors seemed equally important to student teachers and cooperating teachers and produced a desired effect more often than not.

The contribution of the university supervisor was unique, and she had more impact on the student teacher than on the cooperating teacher. Need for supervisory action occurred most often in the areas of student teacher self-concept, lesson planning, program policies and requirements, and rapport with the supervisor.

Dirks suggests that further research is needed to determine ways to maximize university supervisory contributions to the growth of the cooperating teachers and to explore the feasibility of using non-visit methods to supervise student teachers (1967, p. 34).

Monson (1970) reported that the basis for a recent study was that ". . . of all the positions in teacher education today, that of the college [university] supervisor is the one most under attack for being redundant and therefore unnecessary. If some critics of present day teacher education had their way, the role of college supervisor would be eliminated" (1970, p. 44).

A pilot study with the Tri-University Project of New York University was conducted to redefine roles of university supervisors and cooperating teachers. Theoretical assumptions concerning the respective roles included the following:

The college supervisor:

- the supervision of student teachers is a time consuming and not a primarily rewarding task.
- the one-to-one relationship demanded by the present scheme of supervision is not the most efficient use of professors' time.
- the college supervisor can be more influential in improving the quality of student teaching experiences by assisting cooperating teachers in improving their knowledge and skills.

The cooperating teacher:

- is the "key" person in actual "on-the-job supervision.
- is in the most logical position to provide continuous, specific, and individualized help to the student teacher.
- is a professional person who can acquire skill and understanding in supervision and assume major responsibility for such.

The new program changed the university supervisor's role from the traditional "visitor" and "inspector" to that of "teacher" and "invited consultant." The cooperating teacher was encouraged and expected to assume major responsibility for the actual supervision of the student teacher. The decentralization of the responsibility of the supervision of student teachers would make possible:

1. opportunity for better utilization of the university supervisor's training and time.
2. opportunity for in-service growth and increased professionalization for the cooperating teachers
3. opportunity for more relevant supervision for the student teachers themselves

The four major features that made the pilot project unique and different from the usual program of student teaching were:

1. No visits were made to the school by the university supervisor unless she was invited by the student teacher or cooperating teacher.
2. The cooperating teacher was given major responsibility for guiding the professional growth of the student teacher.
3. Seminar training sessions were given by university supervisors and the cooperating teacher had an opportunity to try the ideas.

4. Cooperating teachers were given "equal voice" in planning in-service training seminar topics to be covered.

After completion of the pilot study, the following conclusions were drawn:

- (a) Cooperating teachers can satisfactorily assume major responsibility in student teacher supervision provided they receive training for such.
- (b) University supervisors, cooperating teachers, and student teachers all favor such a supervisory program and the results obtained from the program.
- (c) University supervisors can make better utilization of their professional time and training by conducting in-service training sessions for cooperating teachers rather than by directly supervising student teachers in classroom situations.
- (d) By using analysis systems developed to study teaching, cooperating teachers can better provide analytical supervision for student teachers, and also can improve their own classroom instruction.
- (e) An on-site in-service training program provides for an immediate opportunity to try theoretical ideas in a real situation.
- (f) A college and local school district program of student teacher supervision, cooperatively planned and oriented, results in improved relationships between these two groups and enhances the overall student teaching program. (Monson, 1970).

It appears the role of the university supervisor may need to be redefined, although not eliminated as some critics of present day teacher education suggest. The literature suggests that the role of the university supervisor be decentralized and the role of the cooperating teacher be increased to assume more responsibility in the actual "supervision" of the student teacher.

If the visits made to the schools were eliminated, the university supervisor would serve as a consultant rather than an inspector. She could participate in seminar training sessions for the cooperating teachers as well as evaluation sessions with the student teachers. Based on findings of a recent study, it was concluded that cooperating teachers could satisfactorily assume major responsibility in student

teacher supervision provided they receive the training for this responsibility.

The Traditional Method of Supervision

The basic purpose of a classroom visit by a supervisor is the improvement of instruction (Woodward, 1965). The traditional method of supervision includes various systems, but generally a visit is made to the school in which the student teacher has been "practicing" for a period of time. The supervisor observes the student teacher for both general impressions and specific judgments. A supervisor might follow a procedure involving (a) collecting all observable data during the student teacher's conduct of a lesson; (b) analyzing the data to determine characteristic patterns in the student teacher's teaching behavior; and (c) discussing these patterns with the student teacher (Margosian, 1965).

New developments in data collection have been used in teacher evaluation, some of which include Galloway's Nonverbal Communication in Teaching; Bellack's The Language of the Classroom; Withall's Measurement of the Social-Emotional Climate; Flander's Interaction Analysis; and Taba's Teaching Strategies and Thought Processes (Hyman, 1968). In his review of literature for "The Observation and Recording of Behavior," Boyd (1966) has classified observation techniques into participant and nonparticipant observers utilizing various mechanical observing and recording procedures. The nonparticipant observers are utilizing new media in teacher education, including audiotape and videotape recordings.

Schueler and Lesser (1967) reviewed literature on new media research in teacher education and indicated scarcity of

rigorous empirical research on applications of new media in teacher education. The studies that do exist are primarily of recent origin, with few replicated findings as yet accumulated. The absence of replication and cross-validation of results is perhaps the most conspicuous characteristic of research on media usage in teacher education.

To question the traditional method of supervision is to suggest possible alternative methods of achieving the desired goal--communication between the student teacher, cooperating teacher, and university supervisor to produce a well-qualified, self-confident, and capable teacher. One alternative method of supervision, using new media, involves the use of video tape recordings and telephone conferences by the university supervisor. This method of supervision will be described in the following section.

Video Tape Recordings in Teacher Education

Video taping equipment has been used on the campus of Oklahoma State University for approximately five years. The office of Education Television Services lists those departments actively involved with video tape recording equipment as:

1. The College of Education, the first department on campus to use the equipment, video tapes student teachers during their methods courses on campus and in their student teaching centers for purposes of self-evaluation.
2. The Mechanical Engineering and Computer Science Departments use video tapes of lectures and demonstrations to supplement the course content as well as provide additional information to the students through video tapes that can be checked out in the library and viewed on equipment in the library.

3. The Southwest Center for Safety Education and Research uses video tapes in driver education in the training of student drivers and in the preparation of high school and college drivers education teachers.
4. The Department of Speech video tapes diagnostic and therapy sessions between the speech therapist and the patient for later critiquing by the supervisor. The department also prepares demonstration tapes for use in the speech classes.
5. The Department of Athletics utilizes video tapes in practice sessions for purposes of motivating improvement as well as in sports events to record the competition for later evaluation by coaches and participants.
6. The Department of Agricultural Education uses video tape in the methods courses for student teachers prior to the time student teaching begins. This department used video tape to record role playing situations for later playback to supplement the lesson being taught.
7. The Department of Home Economics Education uses the equipment in the Techniques and Materials class for the purpose of recording 10-15 minute presentations and demonstrations for student teacher self-evaluation.

With the frequent mention of video tape recordings in the literature of teacher educators, it is important to realize that this equipment does constitute a potentially valuable, flexible new education tool. Like all other educational tools, it will be valuable only to the extent that educators creatively put it to use. Preliminary indications strongly suggest that videotaping equipment holds great

potential for the improvement of teacher education (Johnson, 1970, p. 110).

The use of video tape recorders has allowed teacher educators to have samples of teaching-learning situations for purposes of analysis to:

1. develop teachers' insights into classroom behaviors
2. effect changes in teaching strategies
3. gather data in retrievable form for the development of sound programs in teacher education
4. move toward a workable theory of instruction (Morrison, 1969, p. 43).

The research literature of video tape recordings related to teacher education are continuing to increase, and reports of practice are relatively common. In general, these reports indicate two primary uses:

1. The video tape recording of teaching activity as a substitute for classroom observation.
2. The recording of the performance of a student teacher at work.

A more thorough analysis of current uses shows that video tape recordings are used to provide:

1. Observation material for a class or for an individual student.
2. Immediate private feedback for a student teacher or counsellor trainee concerning his performance.
3. Evaluation of performance by a supervisor, or a supervisor and a trainee.
4. Specific preplanned recorded lessons as a basis for methods course instruction.
5. Situational materials to be used with simulation procedures or case study analysis.
6. Feedback and supervisory analysis prior to immediate replication of performance.
7. Both demonstration and feedback in developing specific teaching behaviors.
8. Evaluation of teaching performance on a before-and-after or time lapse basis.
9. Research analysis of teacher behavior, pupil behavior, or teacher-pupil interaction.
10. Instructor-prepared materials for use with CCTV, dial access or film loop independent study activity. (Cyphert, 1967).

It has been stressed in the literature that studying teaching styles in the classroom by video tape is distinctly different from

studying the teaching style of a teacher on educational television who is trying to teach children through the medium of television. The two situations should not be confused (Burleigh, 1967).

Mechanical Aspects of Video Tape

Philosophers believe the self-image really became important in the 15th century with the development of mirrors, and later with the invention of the more true-to-life camera. The video taped performance is the most realistic account of how a teacher works and is thus being heavily promoted at all academic levels (Moore, 1970).

The initial development of video tape recording devices some 17 years ago produced equipment which sold for between \$60,000 to \$75,000 per unit for black and white image handling (Lewis, 1967). Today, at least a dozen companies sell portable television recording equipment, the cheapest of which costs approximately \$1,500. These recording "packages" usually include a portable video tape recorder (weighing approximately 50 pounds), lens (preferably zoom), camera, tripod, monitor (ranging in size from a nine-inch to 25-inch screen), microphone and the necessary video and audio cables. Most of the portable video tape recorders are either one-half- or one-inch tape. This tape costs between \$40 and \$75 per reel, depending upon the quantity and brand purchased (Johnson, 1970, p. 109).

The operation of the video tape equipment is not a difficult task. Some have found the operation only slightly more complicated than that of an audio tape recorder. In a short (two-three hour) session on operation of the recorder, most people can become proficient. Problems may arise when the training session is held more than a week or two before the recorder is to be used. A step-by-step checklist can be

developed from professional user's manuals and can alleviate most of the problems associated with a time lapse between the training session and the actual classroom use (Gustafson, 1967, p. 1070).

In some high schools, the students themselves are trained in the operation and use of video tape equipment. These students, working through the audio-visual department, act as technicians when filming the session. Experience has shown that the student technician's presence in the classroom with the equipment is not a disrupting factor (Cooper, 1969, p. 20).

An important consideration when using video tape equipment is the amount of time to tape for a usable sample of behavior. Experience has revealed that it is not necessary to tape an entire class. A 15- or 20-minute segment done on several different occasions has proved most informative (Hess, 1967, p. 9).

After the video tape has been made, the normal procedure in teacher education is to view the tape. The student teacher either views the tape individually or he can view the tape with a supervisor or cooperating teacher. If it is not possible to view the tape immediately, or the day the tape was filmed, Olivero (1964) found that conferences using video recordings could be profitably held as long as three weeks after the actual class session. The video tape is useful in dealing with problems in teaching, and it is a powerful tool for reinforcing the strengths in a teacher's performance (Cooper, 1969, p. 23).

Observation and Evaluation

Observation is a method of data collection. Evaluation is placing a value judgment on the resulting data collection. Systems of

observation concentrate on what the teacher and pupil(s) are doing, and are being, in the classroom rather than on subjective checking of what they ought to have done or ought to have been according to some "ideal" teacher-pupil model (Morrison, 1969, p. 45).

In some cases, it is difficult for the supervisor or cooperating teacher to explain effectively just what the student teacher is doing or not doing and to bring about the desired improvement. The "impartial" lens of the video camera can help the student teacher recognize teaching method inadequacies and personal traits by accurately recording his behavior (Hoops, 1970, p. 358).

Self-confrontation studies suggest self-evaluation as a most effective means of producing change in behavior (Heen, 1968, p. 17). It is one thing to tell a student teacher what he is or is not doing. It is something quite different for him to personally view himself in the actual teaching situation. It is a psychological fact that an improvement in a person's behavior will more probably come about when he is personally confronted with the image of his behavior (Metzger, 1969, p. 32). The objectivity of the video tape appears to create an evaluative situation that most teachers found more comfortable than the usual classroom visit by a principal or other supervisor (Burleigh, 1967, p. 37).

Studies have found video tape extremely powerful and caution that it must be used with extreme care. One study suggested that about five percent of the teachers should never be permitted to become involved unless extreme precautions are taken. This group consists of the perfectionists who are frequently the better teachers (Heen, 1968, p. 63).

When looking at the first tape, a person becomes very conscious of his personal appearance and this is a natural first concern. This phenomenon is known as the "cosmetic effect" and should be expected (Erickson, 1967, p. 20). With the first playback, most teachers will comment on the tone of voice, posture, mannerisms, and facial expression. With repeated tapings and exposure to the process, they become more sophisticated and begin to observe their teaching strategies and to analyze their classroom performance (Heen, 1968, p. 67).

The remainder of the review of literature will be concentrated on two specific areas: video tape recordings as feedback for student teachers and video tape recordings in remote supervision techniques. It is not possible, however, to omit brief discussion of the beginning of the video tape movement--microteaching.

Microteaching and Microtraining

The term "microteaching" was coined by Dwight Allen at Stanford University in 1963. A lesson is taught to a small number of students at which time a video recording is made. After the short lesson, the tape is viewed by the student teacher and supervisor and suggestions are made for the "re-teaching" of the lesson. The student teacher teaches the same lesson to a new small group in an attempt to improve on his first performance of a specific teaching skill. Microteaching is a training concept that can be applied at various pre-service and in-service stages in the professional development of teachers (Allen, 1969, p. 1).

Another concept, coined by John Meier, includes the same 5 r's of microteaching--recording, reviewing, responding, refining, and redoing (reteaching). His theory attempts to cover a wider range of training

situations, for example, counseling, sales, military, athletic and medical personnel (Meier, 1968, p. 155).

Video Tape Recordings as Feedback for Student Teachers

Credited with the first experiments designed to assess the effectiveness of video and audio recordings for feedback to student teachers are Tintera (1960) and Schueler and Gold (1964).

Tintera employed communications media for teacher training in language, science and mathematics. He tested three hypotheses:

1. Student teachers who analyze their teaching performance with the help of tape recordings [audio] will receive higher ratings than student teachers given only conventional critiques.
2. Student teachers who analyze their teaching using kinescopes (video tape) recordings will rate higher than student teachers using only tape recorders or given only conventional critiques, and
3. After six months, student teachers using kinescope recordings will receive ratings higher than students using tape only, who in turn will rate higher than students receiving only conventional critiques.

Results showed no significant difference in student teacher ratings to support hypothesis one or two. After six months, student teachers trained with the aid of kinescope recordings received ratings that were not significantly different from teachers using tapes, but both groups rated significantly higher than students receiving conventional critiques (Tintera, 1960).

Schueler and Gold (1964) conducted a similar experiment at Hunter College using kinescopes by college supervisors and found no significant differences between supervisory styles of those using kinescopes of student teacher performance and those relying on verbal recollection of the performance. However, supervisors and student teachers indicated positive opinions as to the worth of kinescopes in the program (Schueler, 1964).

Kiser (1969) completed a study at Missouri University which was closely structured in design to the studies of Tintera and Schueler and Gold. Kiser measured the results with Flanders' Interaction Analysis. Although change in instructional behavior occurred in all three groups, and although the change was greater for student teachers receiving video or audio recorded feedback than for teachers in the control group, the only statistically significant behavior change occurred in the video experimental group. Findings and conclusions suggest that utilizing video recorded classroom interaction as part of the supervisory process has positive results and that the effect of both video and audio supplemented supervisory feedback could be enhanced by having supervising teachers highly trained in the use of various feedback media (Kiser, 1969).

Most of the research on the use of video tape recordings in teacher education has been conducted at the elementary and secondary levels. The first study in the area of vocational and technical teacher education was completed by Perlberg, Tinkham and Nelson (1968). They worked with two studies, one having to do with improving inservice education and the second dealing with improving student teaching. The results of the study revealed that both student teachers and experienced teachers could benefit from using video recordings for self-evaluation (Perlberg, 1968).

Riegel (1968) experimented with the video tape recorder for self-evaluation of student teachers in home economics. She found that the data supported the hypothesis that student teachers would add to their evaluation of the lesson taught after they viewed a video taped record of the lesson.

In support of a second hypothesis, she concluded that with each lesson, the student teachers did note new factors which had not been noted in the previous evaluations and by the end of the study each of the student teachers had mentioned more of the factors in teaching behavior suggested on the supervisor evaluation form than she had mentioned at the beginning of the study. The use of video taped sequences can have a positive effect on the student teacher. More items on the evaluation sheet were noted after viewing the playback than before and new factors in teaching behavior were noted with each evaluation of a teaching sequence (Riegel, 1968, p. 54).

Video Tape Recordings in Supervision of Student Teachers

Teacher supervision is one phase of teacher education programs which lends itself to revamping when the use of video tape recorders are used in the process. Olivero (1964), in his study in the use of video recordings in teacher education, attempted to determine the quality of supervision in teacher training programs by substituting video recordings for live classroom observations. Results showed that (1) teacher trainees who receive feedback on their teaching performance make greater changes in selected behaviors than trainees who do not receive feedback and (2) video plus verbal feedback produces greater changes in selected behavior than verbal feedback alone. The results did not prove conclusively that video recordings could always be substituted for live observations in teacher education. Olivero concluded that (1) by eliminating the transportation time problem, video recordings can often help the supervisor and better perform the task for which he is trained, and (2) video recordings offer the possibility of

increasing the load that university teacher-training supervisors can assume (Olivero, 1964).

Some work in the area of supervision through video tape recordings, specifically in Home Economics, has been done by Dr. Mary E. Mather, Chairman, Home Economics Education, University of Illinois. In her experience with the video recorder and college supervision of student teaching, she found both advantages and some limitations when the equipment was used separately from the supervisor's visit with tapes sent back to the college.

Advantages	Some Limitations
1. Supervisor can see a broader range of teacher's performance than on "live" visits alone.	1. There may be a time lag between actual recorded lessons and opportunity for supervisor viewing and telephone conferencing.
2. Supervisor can observe at more stages in student teacher's development, perhaps be in a better position to give help as needed.	2. It may be difficult to schedule for previewing tapes at time equipment is available
3. Time and money costs of supervisory visits can be cut when tapes do the traveling.	3. There may be problems in scheduling of conference: <ol style="list-style-type: none"> <li data-bbox="907 1310 1338 1402">a. at time mutually convenient to all parties concerned, <li data-bbox="907 1402 1370 1528">b. allowing for needed privacy and telephone connections at student teaching center, <li data-bbox="907 1528 1388 1627">c. when TV equipment is available in home office. (Mather, 1968-69, p. 320).

Murphy (1969) utilized audio tape and telephone conferences for state supervision of junior and senior high public school teachers. Analysis of the data did not reveal a statistically significant difference between experienced and inexperienced teachers as to their

perceived satisfactions. A difference did occur on method and ability of verbal interaction with the supervisor.

Smith (1969) experimented with three methods of supervision including face-to-face supervision, audio-phone supervision and video-phone supervision. Below are the advantages and disadvantages of the supervisory methods as expressed by the student teachers and the cooperating teachers:

Advantages

Disadvantages

Face to Face Supervision

- | | |
|--|---|
| 1. allowed for eye contact | 1. three visits not enough |
| 2. immediate feedback | 2. causes unnecessary strain |
| 3. college supervisor could observe the whole class pupil reaction | 3. unrealistic discussion of teaching results |
| | 4. objective evaluation difficult |

Audio-Phone Supervision

- | | |
|--|---|
| 1. increase in both objective and self-evaluation | 1. did not hear a total lesson |
| 2. increase in contacts with college supervisor | 2. college supervisor couldn't see room, pupils, visual aids |
| 3. less pressure on the student teacher, more relaxing | 3. felt lack of personal relationship with college supervisor |

Video-Phone Supervision

- | | |
|--|---|
| 1. increased contacts provide fairer means for evaluation | 1. more concerned with being taped than with the lesson or pupils |
| 2. you see yourself as others see you | 2. college supervisor cannot see overall picture of lesson |
| 3. easier for student teacher to accept helpful criticism, increases self-evaluation | 3. hard to establish rapport with college supervisor via phone |

The findings support the feasibility of the remote supervision of preservice home economics student teachers. All student teachers in all supervisory treatments did improve in teaching behavior and in teaching confidence. The fact that there was no significant difference

among the three supervisory treatment groups in terms of this improvement indicated that learning can occur under all three methods of supervision. In addition to this, there was no significant difference in the expressed satisfaction of the college supervisors for the three supervisory methods they used. The advantages of each supervisory method must be weighed carefully against expenditures of time and money resources (Smith, 1969, p. 144).

White (1970) investigated the effectiveness of the telephone as a means of supervision. In the control group, she made contact through face-to-face supervision two times per center. In the experimental group, she made three contacts for tele-supervision. The tele-supervision included two or three tapes of recorded sessions between the cooperating teacher and student teacher and the same number of tapes of classes being taught by the student teacher.

The results were based on effectiveness of supervision, results of satisfactions experienced in supervision, feelings about accessibility of supervisory assistance, evaluation and objectivity, and expenditure of time and money. Statistically significant differences were found in satisfaction of supervisor and student teachers of the experimental group. A significant difference occurred for time--the tele-supervisor spent \$32.04 more per seven weeks of student teaching and 11.5 hours less time in supervision as compared to the face-to-face supervision (White, 1970).

Summary

The traditional method of supervision needs to be examined in relation to the number of student teachers enrolled and the manhours

required of the university supervisor. If the cooperating teacher is to accept more responsibility for the supervision of student teachers, then the university supervisor would be free to act as consultant whenever necessary. It would not be necessary to visit the school in person as a picture of the teaching behavior could be recorded and mailed to the supervisor for her viewing whenever time permits. The tapes would do the traveling, releasing valuable time for the supervisor to consult with those student teachers having difficulty, hold evaluation seminars with cooperating teachers, and meet with student teachers periodically to discuss common problems.

Studies have revealed the implications for teacher education in the use of video tape for self-evaluation purposes. Other studies have shown no significant difference when using different supervisory treatments to accomplish the same objective--an employable teacher.

This review of literature provided the researcher with the necessary background information to plan the procedure for a feasibility study in Home Economics Education at Oklahoma State University. The procedure will be described in Chapter III. The two sections of the chapter will include a pilot study conducted in the spring semester 1970 with the recommendations made from the pilot study, and the final study conducted in the fall semester 1970.

CHAPTER III

PROCEDURES

In the HEED 4213 course, Techniques and Materials in Home Economics Education, the students apply the basic education principles to specific home economics subject matter. They do so through experiences with verbal and non-verbal communication, teaching techniques, audio-visual materials, and a variety of teaching aids. While the students present their lessons to fellow class members, they are video taped by their peers. They view the playback outside of class time, making a self-evaluation based on a critique form (Appendix B, p. 133). Video tape equipment has been used in the teaching laboratory for two years during the eight weeks of course work prior to the student teacher's departure to the student teaching center.

During the fall semester of 1969 this researcher, as graduate teaching assistant, became aware of the equipment and interested in the contribution video tape could make to the preparation of teachers. In a faculty meeting one member made mention of Mary E. Mather's article in the Illinois Teacher entitled "The Video Tape Recorder--A Versatile Tool in Home Economics Education." It was the exposure to the use of video tape in the department and the reading of Mather's article that gave impetus to this researcher's interest in the possibilities video tape recordings held in the supervision of student teachers. As part of the researcher's teaching assistantship, the responsibilities

included supervising four centers (eight student teachers) in the spring semester 1970. A pilot study was developed and completed during the spring in preparation for the study to be completed in the fall semester 1970. Participation in the pilot study was designed to allow the researcher to gain experience as supervisor of student teachers as well as become familiar with the use and operation of video tape equipment.

The first section of the procedures chapter will describe the pilot study and the recommendations made by the student teachers, cooperating teacher and supervising teacher. The second section will examine the procedures for the data collection in the fall semester 1970.

Description of the Pilot Study

Before plans could be made to experiment with video tape recorders in the supervision of student teachers, it was necessary to identify cooperating schools in the state of Oklahoma which owned the equipment. The list of cooperating schools used by the Department of Home Economics Education of Oklahoma State University was obtained from the director of student teaching and each was contacted by the researcher in one of three methods:

1. surveying the cooperating teachers at an annual conference for cooperating teachers held during the first semester of the school year.
2. contacting two companies in the state that distribute video tape equipment to state school districts.
3. calling each school district by telephone to determine whether or not the district owned video taping equipment.

Of the 29 schools used as centers for student teaching in the spring semester 1970, nine owned either the Sony (General Electric) one-half-inch equipment or the Ampex one-inch equipment. From the nine centers, the pilot center was chosen. It was located only 65 miles from the university campus, which made an additional visit to the center more feasible. This additional visit was necessary to explain the study and seek cooperation of the administration and cooperating teacher.

The student teachers had chosen the center before they were aware that it might be used in the pilot study. Their reasons for choosing the center were its proximity to Stillwater, reputation of the cooperating teacher, and closeness to Tulsa. They were not consulted about their participation in the study until approximately one week before they left campus to begin their student teaching.

The initial contacts were made to the center by letters mailed to the superintendent, principal and cooperating teacher. The letters explained the study briefly and asked for an appointment at which time the researcher would describe the study more thoroughly. After a visit to the school, the researcher found all persons contacted interested in the study and an agreement was made that the school equipment could be used for the filming of the tape. A student operator would be available to film the tape but the researcher was asked to provide the reel of video tape.

To provide a compatible reel of tape, it would be necessary to locate an Ampex one-inch reel. This was not possible, so a Sony one-inch reel of tape and an empty Ampex one-inch reel were obtained from the Department of Education Materials Laboratory and Mechanical

Engineering, respectively, and were mailed to the center. It was then necessary for the person in charge of audio-visual equipment to rewind the Sony video tape on the Ampex reel in order that it be compatible with the equipment in the pilot center.

Before the first taping session, the student teachers agreed that they would feel more comfortable operating the equipment themselves rather than having a student operator in their classroom doing the taping. The faculty member in charge of the equipment taught the girls to operate the camera, to make the necessary sound adjustments, and to thread the recorder for playback. The video tape recording system was scheduled on a master schedule on the days the equipment was to be used in the home economics classroom. The student teachers taped each other and then viewed their tapes during the conference hour.

The student teachers were asked to follow a schedule provided by the researcher for taping sessions and mailing the video tape recordings. The schedule included filming three tapes during the seven-week student teaching experience. After each tape had been filmed and viewed by the student teachers, it was wrapped and mailed to the supervisor. It was found during the course of the seven weeks of student teaching that the student teachers were able to bring the tape to the residence of the supervisor rather than mailing it.

For each of the three taping sessions, the tape critique was completed differently. For the first video tape, the student teachers were asked to view the tape individually and write comments based on their reaction to what they viewed on the playback. For the second and third video tapes, the student teachers were asked to respond to critique forms which had been developed in studies of the use of video

tape recording equipment in Home Economics Education. The second tape critique form was developed by Riegel (1968) in her Master's thesis "Experimentation with the Videotape Recorder for Self-Evaluation of Student Teachers in Home Economics." The third tape critique form was developed by Dwight Allen of Stanford University originally, but used by Bell (1968) in her study entitled "A Report of an Investigation of Microteaching in the Development of Teaching Performance in Home Economics Education at Texas Technological College." After viewing the tapes and completing the critique forms, the student teachers delivered the tapes to the university supervisor.

The supervisor viewed the tapes on equipment belonging to the Department of Mechanical Engineering located in the university library. The first two tapes were viewed without any technical difficulties, but the third tape had to be viewed on equipment owned by the local public school system and located at the high school because the university equipment was not functioning properly. Making arrangements for viewing the last tape was time consuming and delayed the schedule so that a final conference with one of the student teachers concerning the tape was not possible.

To evaluate and discuss the video tape, the researcher used telephone conferences as a means of communication. The first telephone conference with the student teachers was done on the telephone in the main office of the high school. The second telephone conference between the supervising teacher and student teacher took place from the university campus to the residence of the student teacher. The third video tape was critiqued during the last visit made by the supervisor to the student teaching center.

Recommendations of the Cooperating Teacher,
Student Teacher and Supervising Teacher

The cooperating teacher expressed her satisfaction with the use of video tape recordings as a supplement to the visits made by the supervisor. She did recommend that they not completely replace the supervisory visits to the center. Another recommendation was that an additional microphone be used to record interaction between the student teacher and her pupils. The microphone around the student teacher's neck was adequate for the teacher's voice, but the class members could not be heard. The microphone did seem to affect the participation of the class in discussion.

The student teachers who participated in the pilot study made the following recommendations:

1. The subject of the filming session should not wear white because of the glare when viewing the playback.
2. The sound was recorded most satisfactorily when the microphone was worn around the neck rather than placed on the desk.
3. The subjects should avoid wearing chains that hit the microphone while teaching.
4. The blackboard should be washed before filming. Writing on a chalky board was difficult to read when viewing the playback.
5. The procedure for video taping is most effective when teaching partners video tape each other.
6. The class provided better response when the students were called upon by name to answer a question or make a comment.
7. The overhead projector should be used with caution when taping because the glare makes it difficult to read the transparency.

8. The evaluation form developed by Riegel was the most comfortable to use, but space should be provided for comments to further explain the numerical response.

The researcher, as supervising teacher, made the following recommendations to be used when developing the study for the fall semester of 1970.

1. Equipment - The student teachers will need to become familiar with the operation of the equipment prior to leaving the university campus. The reels of tape needed for each of the three schools in the study will need to be borrowed or purchased by the beginning of student teaching.
2. Taping sessions - The tapes that were 20 minutes in length provided the most information for the supervisor. The student teachers should be asked to provide a variety of activities in their taping sessions.
3. Telephone conferences - The conference conducted at the home of the student teacher was most satisfactory. The conference held in the school office was not private, which stilted the response of the student teacher in some cases. The conference should be structured to achieve certain objectives, but should not discourage the student teacher from discussing other problems unrelated to the video tape filming.
4. Cooperating teacher - The cooperating teacher should be consulted in the beginning of the study for her approval and consent to use the center. She should be informed in the beginning that her comments and evaluation of this method of supervision will be requested at the end of the study.

5. Method of filming - It is recommended that the student teachers be trained in the operation of video tape equipment rather than depending on a student operator to do the filming. The student teachers in the pilot felt they were more comfortable filming each other and felt they were more careful in the operation of the equipment.
6. Critique forms - Of the three methods of evaluating the tapes, the evaluation form, developed by Riegel, was easiest for the student teachers to use. They appreciated the simplicity of circling a response and having the information structured for their self-evaluation. The student teachers did recommend that space be provided on the form for written comments in cases where further explanation was necessary to clarify a response.
7. Mechanical difficulties - The sound of the students' responses was a difficulty. It is recommended that additional sound equipment be placed in the schools, whenever possible. The recording adjustment of the audio from the lavalier microphone will need to be thoroughly mastered by the student teachers prior to arriving at the center. The student teachers should be as self-sufficient in the operation of the equipment as possible.
8. Selection of student teachers - Before the student teachers have the opportunity to choose their centers for student teaching, all the prospective participants in the study should be given a description of the process and what will be expected of them. Each should know that when they request one of the three schools they will be involved in the study. This is an important aspect of the study because the attitude of the participants will affect its success or failure.

9. Rapport between supervisor and student teacher - The supervising teacher should use every opportunity to become acquainted with the student teachers before they leave the campus to begin their student teaching. A well-established rapport will help put the student teachers at ease during the telephone conferences and hopefully will cause them to be more open with questions and comments.
10. Procedure for the study - The student teachers should be provided with the schedule, rating scales, and mailing information before leaving the campus. The schedule for filming and mailing the video tapes should be followed as closely as possible.
11. Video taping of student teachers while on campus - The supervisor should work closely with the six student teachers during the eight-week period they are being video taped in their Techniques and Materials class prior to student teaching. During this time, it is important to help the student teacher recognize those personal characteristics they will be noticing in the first tape. If the "cosmetic effect" of the video tape can be minimized before the student teachers leave the campus, the first telephone conference may be concerned with specific information about certain teaching behaviors rather than the physical characteristics of the student teacher.

Procedures for the Data Collection

In the following section, the procedures for the data collection will be divided into four parts. The method for acquisition of the necessary equipment to complete the study will be described, followed by how the sample for the study was determined. The variables will be

explained as they relate to the three centers used in the study. The method of data collection and recording of data are interpreted in the fourth section, followed by the description of the instruments used in the collection of the data.

Acquisition of Video Taping Equipment

As a result of the pilot study, it became apparent that this researcher would either have to borrow or purchase three video tapes to be used in the study. At the end of the spring semester 1970, contact was made to the assistant superintendent of schools for the local school district to borrow three tapes. The school system was currently involved with a Title III ESEA (Elementary and Secondary Education Act) project dealing with the use of video tape. After discussing the procedure with the assistant superintendent, it was agreed that the results of the study would be helpful in the evaluation of one of the sub-purposes of the overall ESEA project--Student Teacher Observation and Training Tapes, as quoted below:

Advantage similar to those realized in observing teachers teach by video tape should also apply to the use of video tapes of a student's practice teaching in giving her feedback about that practice teaching. The objectives here would include decreasing the amount of time required to correct or improve a teaching technique or method, decreasing the reliance on the supervisor's subjective impressions of what went on in the practice teaching, and getting the student teacher to see her own teaching behavior and comment on it. (Application for Funds, p. 20).

A request was made to the assistant superintendent for consent to participate in the Title III project and for the following:

1. Three 1-hour reels of video tape.
2. One training session for the six participating student teachers provided by the Director of Media for the school system to teach the operation of the video taping equipment.

3. 30 hours of video playback time on equipment owned by the school system.

In the original plan for the study, it was thought necessary to see each video tape twice when it was received by the supervisor. However, after viewing the first tapes received from the centers, it was decided by the researcher and the adviser to the study that viewing the tapes once would provide the necessary information to complete the rating scale. It was possible to rewind the video tape to a section that might require additional viewing, but it was not necessary to play each one-hour tape twice in order to feel a satisfactory evaluation had been made of the sequence. This request for 30 hours of video tape playback time was double the amount of playback time actually used by the supervisor. Each one-hour tape was played once, which meant three hours of playback time per week for five weeks or 15 hours of playback time for the entire study.

After locating the video tapes to be used, scheduling the playback equipment and playback time for the tapes, and agreeing on a workshop to teach the six student teachers the operation of the equipment, it was necessary to identify the three schools that would be used as centers in which the study would take place.

From the list of schools in the state which owned video taping equipment, three centers were selected as possibilities for participation in the study based on the following criteria:

1. The school was located beyond a 100-mile radius of the university campus.
2. The school administration was willing to participate and was interested in the study.

3. The cooperating teacher was willing to allow her classroom and students to be used by the student teachers in the collection of data for the study.

In the summer of 1970, schools 1, 2 and 3 were contacted by letters (Appendix B, p. 134). Appointments were requested with the superintendent, principal, cooperating teacher and person in charge of the video taping equipment for the school system. These appointments were made during the month of August, before the beginning of the new school year. A trip was made to each school and permission was granted for use of the school-owned equipment and for the use of one school-owned video tape should complications in the mail service prevent the arrival of the study tape on the scheduled date.

In general, the administrators and cooperating teachers were very interested in experimenting with the video tape equipment using a new application. Two administrators mentioned the lack of use of the video tape equipment. They thought the study would provide some publicity for the use of the equipment other than recording athletic events.

With the video tapes obtained for use in the study and permission granted for use of three cooperating schools, the sample for the study was obtained.

Sample of the Study

During the first class meeting of the course entitled Student Teaching in Home Economics, the researcher met with all 43 student teachers for the fall semester 1970. The video taping project was explained, including the objectives of the study and explanation of the schedule for the seven weeks of student teaching that had to be maintained for the completion of the study. All the student teachers were

given an opportunity to select their centers on a volunteer basis, each knowing the three schools in which the research project was taking place. There were eleven girls that signed up to student teach in the three centers using video tape in their supervision. Of the eleven, six were selected by the Director of Student Teaching for participation in the study.

It was believed important for the university supervisor to know the participating students as well as possible in the eight weeks prior to student teaching. As soon as they were identified, a get-acquainted coffee was held in the home of the supervisor as a means of initial contact, followed by two meetings, one individual conference and one workshop to learn the operation of the equipment. It was estimated by this researcher that a total of 5½ hours were spent by the supervisor in group or individual contact with each student teacher. In addition to this time, the supervisor observed the presentations and demonstrations given by each student teacher in the techniques and materials class. This totaled approximately 45-50 additional minutes per student teacher.

It was hoped that each student teacher would be able to be video taped at least once before going to her student teaching center. Due to technical difficulties, only four of the six student teachers were video taped before leaving the campus for the center. Because the equipment was not available in the techniques and materials class as much as planned, the researcher realized the student teachers were not being exposed to the operation of the equipment as much as was originally intended. With this lack of experience in video tape equipment usage, the need of an operation workshop increased.

For this workshop, the researcher developed an operator's manual for each of the six student teachers. Four of the student teachers were to use the 1/2-inch tape and two were to use the 1-inch tape. References for both kinds of equipment were consulted, and those pages illustrating the operation and threading of the recorder were Xeroxed. A step-by-step checklist was written and placed in a notebook with the Xeroxed directions for future reference. It was the intention of the researcher to provide a source of information for the student teacher's consultation should any technical problems arise. These operator's manuals were available at the workshop and were used to supplement the information given by the workshop directors.

The assistant superintendent and the Director of Media of the local school district served as co-directors of the workshop. One worked with the four girls on the 1/2-inch equipment and the other worked with two girls and the researcher on the 1-inch equipment. During the workshop, each student teacher was provided an opportunity to attach the necessary audio and video cables to the recorder, camera, and monitor. Each threaded the recorder, actually recorded a sequence, and played the sequence back for viewing. The 1/2-inch equipment was in the Techniques and Materials class and therefore was familiar to all six of the student teachers. It was the one-inch equipment that was unfamiliar and needed to be examined by the two student teachers using this type in their centers.

Variables of the Study

All of the six participating student teachers were trained in the operation of the video tape recorders in a similar manner. Each was

given instructions on how to handle the tapes after they had been filmed which included placing the video tape and lesson plan in a padded envelope, stapling the end of the envelope closed, attaching an address label and stamps, and mailing the tape to the residence of the supervisor.

The schedule for filming the tapes was the same for each of the six student teachers, with the tape arriving in the centers on Tuesday, video tapes being made on Wednesday or Thursday and mailed to the supervisor Thursday evening. The schedule was met in each case except one, where technical difficulties were encountered. A copy of the schedule was given to all participating members of the study (Appendix B, p. 135).

The telephone conferences were held each Monday night. The supervisor called the student teacher in her home, at an agreed-upon time. The conference began with a discussion of the video tape, but often ended in discussions dealing with special problems the student teacher was having or questions concerning her teaching. The time schedule for the telephone conferences was made in the beginning of the study and maintained through completion of the study.

Through special permission from the head PBX operator of the university switchboard, it was possible to use the university WATS line for an extended period of time. The permission was granted after a letter stating times and dates was sent to the head operator. She notified the switchboard operators of the study and asked them not to interrupt the call after ten minutes, which is the normal procedure. Since the university line is an outward WATS line, it was only possible

for the researcher to call out to the student teachers' residences. The student teachers could not call in on the WATS line.

The calls were approximately 30 minutes in length. The supervisor called the first student teacher at 6:00 p.m. and completed the sixth call at approximately 9:00 p.m. Upon one occasion, there were two student teachers with special problems to discuss. During this calling session, the supervisor was on the line from 6:00 until 11:00 p.m. This was an exception and only necessary because of the circumstances requiring additional consultation from the supervisor.

Other variables in the study deal with the method in which each of the three centers was supervised by the researcher and will be described individually.

Student Teaching Center 1 was not visited by the supervisor during the data collecting period. The information obtained about the student teacher's progress was received through viewing the video tapes mailed to the university campus and through telephone conferences conducted with the student teachers and the cooperating teacher. The cooperating teacher at this center was called weekly, usually on a Tuesday night. During the telephone conference with the student teachers and cooperating teachers, the rating scales were reviewed and concerns of all participants were discussed.

Student Teaching Center 2 was visited once, late in the seven-week period of student teaching. The same schedule was followed with the two student teachers involving one weekly 30-minute telephone conference at the home of the student teacher. The one visit was made at the end of the sixth week of student teaching. The visit involved a trip to the center, spending an entire day with the student teachers, and

concluding with a conference with the student teacher and the cooperating teacher. During this conference, the proceedings of the day were discussed and the previous five weeks were analyzed for special learnings that took place and important lessons that were learned by the student teacher.

Student Teaching Center 3 was visited once, early in the seven-week period. At the initial visit made to the administration of Center 3, it was requested that the supervisory visit be made early to the center. In compliance to this request, the researcher scheduled one visit at the end of the second week of student teaching.

To experiment with the use of additional sound equipment other than the one lavalier microphone normally used with the video tape recorder, two bi-directional (160°) microphones for low impedance audio recording were rented from the university library audio-visual service and taken to the center after the first video tape had been filmed. The microphones were placed on stands in opposite sides of the classroom. An audio mixer was used to record the three microphone intakes simultaneously onto the video tape. The additional sound equipment was used for recording the second through the fifth tapes.

The visit to this center involved a procedure similar to that followed at Student Teaching Center 2. A trip was made to the center, arriving at the beginning of the day and leaving at the completion of the class schedule. Conferences with each student teacher and the cooperating teacher were held during available time throughout the course of the day.

Gathering and Recording Data

The data for this study were collected from rating scales of five video tapes of each student teacher and from an evaluation form completed by each student teacher and each cooperating teacher at the end of the study. The video tapes were received by the supervisor on a Friday or Saturday in the mail to her home address. Arrangements had been made with the local school system for use of their playback equipment at the studio used for filming the educational tapes to be used in the system. The studio had both the 1/2-inch and 1-inch equipment and was used by the supervisor from 8:00 a.m. until 11:30 a.m. or 12:00 noon, depending on the amount of playback the researcher wished to rerun on a particular tape. The studio was located downtown, not on the university campus. This was not inconvenient, however, and the technician was most helpful with the adjusting of the sound and picture. The studio was near the post office, so the tapes were mailed immediately after they had been viewed.

The researcher used one evaluation form for each of the tapes. Each of the student teachers was to have completed five tapes, but due to technical difficulties, only four student teachers were able to complete all five of the tapes. One student teacher had four tapes, and another student teacher had only three tapes. In one instance, a portion of the tape had been covered with another recording, eliminating one student teacher's performance. In the second instance, there were technical difficulties that prevented either of the two student teachers from completing their fifth tape.

The final evaluation of the study was completed by the student teachers after they returned to the university campus. The form used

was self-explanatory and took only a few minutes for their responses. The three days the student teachers were back on the campus was a heavily scheduled period and it was thought by this researcher that a brief written evaluation would be better than a verbal evaluation, requiring more time and less specific findings.

Instruments Used

After a review of the available literature, it was decided by this researcher that the use of a rating scale developed by Riegel (1968) would be most suitable to this study. After contact had been made and consent had been granted, the evaluation form was reproduced, with a slight change in the method of response to be made by the student teacher. As a result of the pilot study, it was recommended that the student teacher be allowed some space to write in any comments or remarks to further explain a certain reaction. The form was typed in large form and reduced to fit an 8½ by 14-inch sheet of paper. The originator of the form gave the following interpretation to the scale:

- 4 -- Superior example, no work needed in this area
- 3 -- Adequate, but could be better
- 2 -- Needs work in this area
- 1 -- Nonexistent in lesson

The forms were given to the student teachers before they left the campus. The supervisor went over the form with each student teacher explaining the scale and method of response. The supervisor used the same form when viewing the tapes.

There are 34 categories on the form under three major headings-- Student, Teacher, and Lesson. Under the heading Students there were two subheadings:

	Superior example, no work needed	Adequate, but could be better	Needs work in this area	Nonexistent in lesson
Students	4	3	2	1
1. Interest				
2. Discipline				

Due to a lack of adequate sound equipment, it was not possible to observe the classroom students in many other areas than interest and discipline. These categories were rated on the information provided by occasional panning of the classroom with the video camera and concentration on the student teacher's relation to and reaction from the students.

The second major heading--Teacher--had seven subheadings:

Teacher				
1. Appearance				
2. Poise				
3. Voice	A. Tone			
	B. Volume			
4. Speech	A. Clearness			
	B. Grammar			
	C. Pronunciation			
5. Mannerisms				
6. Enthusiasm				
7. Subject Matter	A. Knowledge of			
	B. Accurateness			

Under the subheading Mannerisms, characteristics such as overuse of certain responses, i.e., "O.K.!", "That's right!", and "Good!", nervous handling of chalk or hair, extreme gestures in explanation are examples of comments made by the supervising teacher and student teacher.

There were seven subheadings in the area of Lesson. They include:

Lesson					
1. Organization	A. Timing				
	B. Sequence of lesson				
2. Objectives	A. Clearness				
	B. Attainment				
	C. Adapted for students and subject				
3. Introduction	A. Interest				
	B. Lead into lesson				
4. Subject Matter	A. Suitability for students				
	B. Coverage				
5. Teaching Techniques	A. Appropriateness of questions for subject and student				
	B. Quality of thinking caused by questions and discussion				
	C. Skill in handling teaching technique				
6. Teaching Aids	A. Aid to learning				
	B. Student comprehension				
	C. Neatness				
	D. Adapted for subject				
	E. Adapted for students				
	F. Interest				
7. Closing	A. Generalizations, summary or evaluation				
	B. Clearness of assignment				
	C. Appropriateness of assignment for students and lesson				

Of the seven subheadings, numbers 3 and 7 could not be filmed in the same 30-minute segment of video tape. The introduction was sometimes filmed. The closing was rarely filmed, resulting in almost consistent ratings of 1 in category 7 indicating the closing was non-existent in the lesson.

If a student teacher were to receive all 4's (superior rating) she would receive a total of 136 points. All 3's would be a total of 102 and all 2's would total 68. The forms were completed for each student teacher and totals were made at the end of each day of viewing. The results of these ratings scales completed by both the supervising teacher and student teacher herself will be examined in Chapter IV.

So that the student teachers and cooperating teachers could assess the value of the video tape method of supervision, an evaluation form was developed. The method of response and several questions were taken from a form used in a study by Mulac (1968) in "An Experimental Study of the Relative Pedagogical Effectiveness of Videotape and Audiotape Playback of Student Speeches for Self-Analysis in a Basic Speech Course" (Appendix B, p. 136). Mulac's analysis of the data showed that students who viewed video tapes demonstrated significantly greater overall speech skill and bodily action, personality, language and voice skills than the other groups in the study that did not use video tapes.

In order to determine the effectiveness of video tape not only as a method of self-analysis but also as a method of supervision of student teachers, it was necessary to add questions to the original form and delete those pertaining specifically to speech students. Approximately half (17) of the 35 questions on the evaluation form were taken from Mulac's form and reworded to apply to the study. The other half

(18) were developed by the researcher in an effort to determine satisfaction of the student teacher and cooperating teacher with this experimental method of supervision.

To obtain an evaluation of the study from the three cooperating teachers, the same 35 questions were reworded to have meaning for the cooperating teachers and were mailed to the teacher. The responses from the cooperating teachers will total six because each teacher responded to the form in relation to the behavior of one particular student teacher. It was not possible to receive an accurate evaluation of the study if the cooperating teacher had been asked to respond to two student teachers in the same general response. No two student teachers reacted to the study in the same manner, likewise the cooperating teacher could not respond for two student teachers in the same questionnaire.

The results of the scores of the rating scale on each of the video tapes will be described in the following chapter. The analysis of the responses to the study evaluation form will be presented and discussed as to student teacher satisfaction and cooperating teacher satisfaction. These data will be the basis on which the conclusions and recommendations will be made in Chapter V.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The presentation and analysis of data collected in this study will be discussed in the following four sections. The first section will describe the results of the Riegel rating scales completed on each of the video tapes. These results will be discussed in relation to the final grade the student teacher received in the course and in relation to the average evaluation made by the university supervisor and the student teacher on the rating scale. The second section will deal with the responses of the student teachers to an evaluation questionnaire they completed after returning to the university campus at the end of the study. The third will relate to the cooperating teacher's responses to a similar evaluation questionnaire completed at the end of the video tape study. The final section reveals an estimate of the expenditures for two methods of supervision in terms of cost as well as time.

Results of Student Teacher Rating Scales

In the original plan of the study, the researcher was to complete one rating scale (Chapter III, p. 63) on all five video tapes for each student teacher. Because of technical difficulties and inexperience in the operation of the equipment, only three tapes for Student Teacher A and four tapes for Student Teacher B were available. All five tapes were completed for Student Teachers C, D, E, and F. The total possible

points to be made on each of the rating scales was 134 although the highest total made by a student teacher in the study was 115. The lowest score made by a student teacher on a single scale was 81. The range of scores can be found in Table I.

TABLE I
RATING SCALE TOTALS FOR EACH VIDEO TAPE PER STUDENT TEACHER

Tape Number	Student Teachers					
	A	B	C	D	E	F
1	103	83	115	96	99	88
2	104	83	89	110	98	109
3	*	92	101	107	110	105
4	105	81	114	102	108	112
5	*	*	109	100	109	100

*No video tape made due to technical difficulties.

The results of the rating scales do not show a progression in number from the first video tape to the last video tape. This can be explained by examining more closely the results of Student Teacher C. On video tape one, the student teacher received a total of 115 while demonstrating principles of pressing a garment. She was able to include all the categories of the rating scale in her presentation except a closing. In this one category she received 1's which indicated the closing was nonexistent in the lesson. For video tape two, the student teacher received a total of 89 while helping the students plan for

the preparation of snacks. According to the categories of the rating scale, she received 1's for Introduction and for the six subheadings under Teaching Aids, giving the student teacher 8 points for those two categories instead of the possible 32 points. The rating scale was used to evaluate all five video tapes, although each one showed different teaching techniques and methods.

To ascertain whether there was a correlation between the average scores achieved and the final grade received by each student teacher for the course, a correlation coefficient was determined. The average of the total scores was used rather than individual scores received by each student teacher. The letter grades A, B, and C were given the numerical value of 4, 3, and 2, respectively. The results showed $r = .82$ and the calculated $t = 2.856$. On the basis of the t test (tabulated $t = 2.78$, $\sigma = .05$) there is some evidence that there is a correlation between the scores of the rating scale and the final grade received in student teaching.

Table II shows the scores achieved on the rating scale and the grades received for the course. In the scores shown for student teaching grade B, there are three scores ranging from 104 to 101.4. If a comparison is made between the mean scores of the A's and B's, it is observed that one student teacher received a B when she did, in fact, have a score higher than another teacher that received an A. If the grade received by the student teacher with a total of 104 had been an A instead of a B, there may have been even more correlation between the scores of the rating scale and the grades received in student teaching.

The results of the rating scale were not the only basis for grading the student teachers. Other factors considered were:

1. The ability to work with all kinds of students, i.e., disadvantaged, slow-learners, or gifted.
2. The self-confidence obtained in controlling the classroom situation.
3. The improvement shown in organizing lesson plans and pacing presentations of lessons.
4. The methods of evaluation used to determine the accomplishment of class objectives.

TABLE II
AVERAGE SCORES ACHIEVED ON THE RATING SCALE AND
GRADES RECEIVED IN STUDENT TEACHING

Range of Average Scores	Student Teaching Grades		
	A	B	C
105	(105.60) *	(104.00) *	
	(103.00) *	(102.20) *	
		(101.40) *	
100			
95			
90			
85			(84.75) *

Although more factors were considered in awarding a student teacher a final grade for student teaching, this study was concerned with an evaluation of teaching based on Riegel's rating scale. This rating scale consisted of 34 categories under three over-all headings-- STUDENTS, two categories; TEACHER, 11 categories; and LESSON, 21 categories (Appendix A). To determine any trends in the evaluation of a student teacher based on viewing video tapes of a teaching sequence, an average was computed for each of the 34 categories. The averages were computed on a separate basis, i.e., university supervisor responses apart from student teacher responses, and on a combined basis to provide an over-all average for one category on the rating scale. These averages are shown in Appendix A with the STUDENT categories comprising Tables V and VI; TEACHER categories in Tables VII-XVII and LESSON categories in Tables XVIII-XXXVIII. In order for the averages to have meaning to the reader, it may be necessary to review the ratings:

- 4 -- Superior example, no work needed
- 3 -- Adequate, but could be better
- 2 -- Needs work in this area
- 1 -- Nonexistent in lesson

The total possible responses for one category on all tapes is 27. This figure is reached by combining three tapes for Student Teacher A, four tapes for Student Teacher B and five tapes for Student Teachers C, D, E, and F. The averages that will be discussed in the next section are a combination of the average of the university supervisor and the average of the student teacher as they responded to the scale. The cooperating teacher did not respond to the rating scale as a portion of this study although the areas of the scale were discussed in conferences

between the cooperating teacher and student teacher. When adding the university supervisor and student teacher response together, there is a possible total to one category on the rating scale of 54 responses. When this figure is less than 54, i.e., 53 or 52, it indicates to the reader that there is not a 100% response to that category. This may be the result when the supervisor or student teacher did not feel an evaluation could be made based on the teaching sequence because of lack of information. In many such cases, response 1 was checked to indicate the category was nonexistent in the lesson.

The following trends were seen in the evaluation based on category responses to Riegel's rating scale by the university supervisor and the student teachers.

1. The five highest averages were found in the following categories:

TEACHER: Speech clearness averaged 3.60 with 53 responses

(Table XI); Speech pronunciation averaged 3.58 with 52 responses

(Table XIII);

LESSON: Objectives adapted for students and subject averaged 3.60

with 52 responses (Table XXII); Subject matter suitable for stu-

dents averaged 3.60 with 53 responses (Table XXV); and Teaching

aids added to learning averaged 3.50 with 48 responses (Table XXX).

In the area of speech, the video tape playback was helpful in providing the student teacher with an opportunity to evaluate her own voice. One student teacher did comment in a telephone conference that as the volume of her voice increased, the tone became high and annoying. She made progress in her ability to control the tone as she checked herself on following tapes.

2. The five lowest averages were found in the following categories:
 LESSON: Introduction interest averaged 2.19 with 52 responses (Table XXIII); Introduction led into lesson averaged 2.24 with 51 responses (Table XXIV); Closing generalizations, summary or evaluation averaged 1.61 with 51 responses (Table XXXVI); Clarity of closing assignment averaged 1.46 with 50 responses (Table XXXVII); and Appropriateness of closing assignment for students and lesson averaged 1.42 with 50 responses (Table XXXVIII).

Because a 30-minute segment was filmed on each student teacher, it was not always possible to complete the lesson at the end of the 30-minute time period. Often the video tape filming was started after the introduction had been given. The above low averages indicate the introduction and closing were nonexistent in the lesson in many cases, rather than poorly delivered.

3. Four areas that received low averages and also received comments by the student teachers during the telephone conferences were:
 TEACHER: Mannerisms averaged 2.83 with 46 responses (Table XIV); Teaching techniques included appropriate questions for subject and student averaged 2.89 with 54 responses (Table XXXVII); Teaching techniques caused quality thinking with questions and discussion averaged 2.77 with 48 responses (Table XXVIII); and Neatness of teaching aids averaged 2.88 with 50 responses (Table XXXII).

Of the above group, the low average for neatness of teaching aids is difficult to explain. It may be low for the same reason Introduction and Closing categories were often low--the evaluation was difficult to make based on the teaching sequence. On several tapes, the operator of the camera did not focus on the teaching aid which made

visual evaluation in the playback impossible. A description of the teaching aid was usually included in the lesson plan for evaluation in some of the other categories.

Mannerisms that were noticed included overuse of particular words such as "O.K.," "That's right!", "Ahhhhh," "Yeh!" and unnecessary movement of hands and arms. Recommendations were made by each of the student teachers and in five of six cases, were quite adequately met. The other was beginning to make progress by the completion of the fourth tape.

In the teaching techniques category, all six student teachers needed improvement in their ability to ask questions. In the beginning the student teachers agreed that their questions were primarily at the knowledge level of the Cognitive Domain. While viewing and examining the tapes, the student teachers were able to review the questions they had asked and comment on the level at which they felt the questions were directed. After viewing the five tapes, three of the student teachers made some progress in developing questions at the comprehension, application, and analysis levels of the Cognitive Domain. The other three student teachers were aware of the need for improvement in their questioning technique, but placed their effort for improvement on other areas.

Two student teachers realized, after viewing the first tape, that their leadership in a class discussion needed improvement. The discussion seemed uninteresting on the video tape recording playback. The student teachers realized they were calling on the same two or three students and not involving all members of the class. With their own

realization of this difficulty, improvement was observed on each of the succeeding tapes.

By viewing the video tapes, it was possible to observe growth of the six student teachers with varying degrees of strength. Three of the student teachers, as observed on the video tape playback, grew in their rapport with the pupils, omission of annoying mannerisms, increased enthusiasm, ability to ask more thought provoking questions, and evaluation of teaching aids used in the lesson.

One student teacher observed in her first tape that she was really more enthusiastic about her subject than she reflected on the video tape recording. She showed much improvement in the area of nonverbal communication and later felt this to be one of her greatest accomplishments in the seven weeks of student teaching. She began to smile at her students, use their ideas in her discussions and praise and encourage their participation.

Two student teachers did not exemplify as great a degree of growth on the video tape playback, but their first scores on the rating scales were high on video tape one and continued to be high throughout the study. Both student teachers developed their self-confidence and insight into solving teaching problems, which was detected by the supervisor during the telephone conferences throughout the five weeks of the study.

One student teacher did not show much growth on the video tape playbacks. The problems she encountered while student teaching were brought to the attention of the university supervisor while watching the first video tape and this allowed for immediate plans with the cooperating teacher to help her increase her self-confidence and

teaching abilities. This student teacher was video taped only four times. It is the belief of the researcher that a fifth tape would have revealed considerable growth in development of confidence and abilities, i.e., leading a discussion, giving directions, using the ideas of students, all of which took place during the fifth, sixth, and last week of student teaching.

Responses of Student Teachers to Evaluation Questionnaire

In order to evaluate the video tape study based on student teacher satisfaction with their supervision, a questionnaire was developed. A 5-point continuum was used on the questionnaire and the following responses were circled: Yes (5), Probably Yes (4), Undecided (3), Probably No (2), and No (1). The 35 questions and the responses of the student teachers are shown in Table XXXIX and found in Appendix A. Four open-end questions were asked in addition to the 35 questions and will be discussed at the conclusion of this section.

If five of the six, or all six of the student teachers circled the Yes or No response, this researcher considered the group to be in STRONG agreement in their response. The following ten statements are made based on the six student teachers' reactions to the evaluation questionnaire and are not meant to represent student teachers in general. The numbers at the left of each statement relate to the number of the question on the questionnaire. The statements of strong agreement by the student teachers were:

- (5.) The video tape was valuable in helping the student teachers improve their presentation of lessons to the class.
- (8.) The use of video tape made the student teachers more aware of their problems in oral communication.

- (9.) The marking of the self-evaluation form made the video tape experience more meaningful.
- (11.) The student teachers did not think it was unfair of the supervising teacher to require them to see the video tape.
- (18.) The student teachers think video taping is a good technique to use in the Techniques and Materials class (HEED 4213).
- (26.) The student teachers felt the telephone conferences were helpful in evaluating their progress.
- (29.) The student teachers felt that filming five video tapes was an adequate number.
- (31.) The student teachers thought there was value in placing additional microphones in the classroom for recording students' voices.
- (33.) The student teacher did not feel it was time consuming to prepare the tape for mailing and mail the tapes.
- (34.) The tape usually arrived at the student teaching center in time to be used on the scheduled day of taping.

When the combined responses to Yes and Probably Yes or to Probably No and No totaled six, it indicated to this researcher another level of agreement, although not as strong as the first group. The following eleven statements are based on the six student teachers' responses to the evaluation questionnaire which were in GENERAL agreement.

- (3.) The use of video tape was worth the time spent.
- (4.) It would be helpful for the student teachers to see their performances more than once.
- (7.) It would have been helpful to have the cooperating teacher's written critique of the presentation while the student teacher viewed the tape.

- (12.) The student teachers agreed that audiotaping would be as helpful as videotaping.
- (16.) The presence of the equipment was not distracting to the students [pupils] while taping at the end of the five weeks.
- (17.) The presence of the equipment was not distracting to the student teachers.
- (20.) It was not unfair for the supervising teacher to require the student teacher to mark the self-evaluation form.
- (21.) The student teachers would have viewed the videotape before mailing it even without that requirement in the study.
- (22.) The student teachers were satisfied with the help obtained from the supervising teacher through this method of supervision.
- (24.) The student teachers agreed that the end of the second week of student teaching was not a recommended time for a visit by the supervisor.
- (27.) The student teachers felt that 30 minutes was enough time to allow for a telephone conference.

The responses to the remaining 14 questions were divided and will be discussed in relation to the number responding to the choices. Yes and Probably Yes will be considered positive responses while Probably No and No will be viewed as negative responses.

The six student teachers were divided in half on their responses to three questions, numbers 1, 23 and 28. Three were nervous when they were taped in the center for the first time and three were not nervous. Half of the student teachers felt a visit to the student teaching center by the supervising teacher was necessary while the other half felt it was not necessary. The two student teachers at the center who

were not visited by the supervising teacher circled their response as Probably No and No. Three student teachers felt there was a time when they wanted to talk with the supervisor other than the regularly scheduled telephone conference calls and three felt there was no time when they needed to talk with her.

In five questions (numbers 2, 10, 13, 14 and 15), the responses of the student teachers were four positive and two negative. Four student teachers who spent over 1½ hours in the total activity felt the use of video tape motivated them to prepare for their next lesson differently, thought the TV picture and sound gave a fair representation of how they looked and sounded, thought that videotaping the first lesson made a difference in how much or how they prepared for later tapes during the five weeks, and felt the presence of equipment was distracting to the students while taping at the beginning of the five weeks.

Of the remaining six questions (6, 19, 25, 30, 32, and 35) there are miscellaneous responses of no apparent significant value in the study. These responses are found in Table XXXIX.

There were four open-end questions asked at the conclusion of the questionnaire, which will be discussed individually. The first question asked the student teachers to make suggestions for improving the system of preparation for proficiency in the operation of the video tape equipment. Of the six student teachers, five felt they could not make any recommendations for improving the system of preparation. One student teacher mentioned that student helpers came into the classroom to set up the video taping equipment. Although she did not have to set up the equipment for the filming session, the student teacher thought she would have been able to manage with the aid of the operator's manual.

One student teacher made a suggestion that "everyone know for sure how to tape [thread] the machine." She was being taped at one time during the study but the tape had been threaded incorrectly and no recording was made.

The second question asked how many times the student teachers thought the video tapes should be made in the seven weeks of student teaching. Each of the six student teachers said five video tapes. One student teacher said four or five.

The third question asked if a visit is to be made to the center, when did the student teacher think it would be most effective. Three student teachers recommended that the visit be made during the middle (4th week) of student teaching. One recommended the middle of the fifth week, and two suggested the end of the experience. This researcher interpreted this to mean the sixth week of student teaching.

Because the researcher believed the questionnaire did not cover all areas of the study, the final question asked the student teacher to write comments about her feelings toward the study. All six of the student teachers made additional comments.

One student teacher mentioned the difficulty in planning for the video taping session because the teacher could not have a test, guest speaker, or field trip that day. Another suggested the possibility of using video tape as a means of screening late college sophomore or early junior level students to aid in the evaluation of a person's ability to teach home economics. Perhaps rather than "screening" students, the video tape recorder could aid teacher educators in making recommendations for improvement in various teaching techniques.

Two student teachers commented on the telephone conferences. One said although she felt the phone calls were helpful, she felt the help seemed devoted to the making of the tape mainly and that the comments applied to that tape and not to everyday teaching. The fourth student teacher mentioned that the phone conferences were most valuable to her. Without the video tape, however, she could not see that a telephone conference would be needed.

A fifth comment made by a student teacher was that the video tape recording was seriously lacking in capturing the emotional environment of the classroom, which she felt to be very important to the teacher-student relationship. A sixth teacher stressed the importance of using video tape for self-improvement and developing self-confidence. She felt the video tape reinforced the comments made to her by the cooperating and supervising teacher.

Responses of Cooperating Teachers to Evaluation Questionnaire

The cooperating teachers responded to a similar questionnaire to that of the student teachers. The questions were reworded to have meaning to the cooperating teacher and questions 27, 28 and 30 were omitted because they were relevant only to the student teachers. The questions and responses of the cooperating teachers are shown in Table XL. The cooperating teacher completed a questionnaire for each of the two student teachers involved in the study. Four open-end questions were asked in addition to the 32 questions and will be discussed at the end of this section.

In the area of STRONG agreement, the cooperating teachers responded to six of the ten questions answered in strong agreement by the

student teachers. These were questions 5, 11, 18, 26, 31 and 34. The cooperating teachers were in agreement on the following four statements.

- (7.) It would have helped the student teacher to have the cooperating teacher's written critique of her presentation while she viewed the video tape.
- (10.) The cooperating teachers felt the student teachers were motivated to do something different when preparing for the next lesson.
- (20.) The cooperating teachers did not think it was unfair of the supervising teacher to require the student teacher to mark the self-evaluation form.
- (22.) The cooperating teachers were satisfied with the help obtained from this method of supervision.

In the general level of agreement, that of combining responses Yes and Probably Yes or Probably No and No, the cooperating teachers and student teachers agreed it would be helpful to see the video tape more than once (4.). They were also in agreement on the following:

- (15.) The presence of the equipment was distracting to the pupils while taping at the beginning of the five weeks.
- (19.) The student teacher sometimes had a higher opinion of her performance before seeing the tape than after seeing it.
- (29.) The cooperating teacher felt filming five video tapes was an adequate number.

The miscellaneous responses to the remaining questions may be found in Table XL.

The following discussion is concerned with the responses of the cooperating teachers to the three open-end questions asked at the end of the questionnaire. The fourth question asked on the student teacher

evaluation form had to do with proficiency in operation of the video tape equipment and was not asked on the cooperating teacher form. When asked about the number of video tapes they would recommend for the seven weeks of student teaching, one cooperating teacher said five tapes and two said four or five.

In response to the question concerning when a visit should be made to the center, one cooperating teacher recommended that the visit be made about half way or after two or three weeks of teaching, never the first week. Another said the visit should be made after the student teacher had been teaching for at least one week. The third said the visit would be best near the middle of the experience.

One cooperating teacher did not make any additional comments on the questionnaire. One mentioned the fact that the study was a new experience for the school and that it did create interest among the students and faculty. The cooperating teacher mentioned that the students wanted to appear well on the tapes and were very interested in seeing themselves when the tapes were played back.

The third cooperating teacher thought video tapes were an excellent means of supervision of student teachers, but suggested the student teachers have additional training in working the video tape before they arrived at the centers. She thought the telephone conferences were an excellent phase of the study and recommended they be considered in all student teacher supervision. This cooperating teacher commented that "she had concerned and capable help [from the supervisor] the entire time concerning the problems of the student teachers."

Estimation of the Expenditures for Supervision in Time and Cost

One basis for the study of alternative means of supervision of student teachers is the expenditure of time and money on the part of the university supervisor; therefore, it was reasonable for this feasibility study to include an estimate of the time and cost of both the visitation method of supervision and the video tape method of supervision.

The expenditure of time for the visitation method of supervision (Table III) was based on an approximation of the hours involved in observing presentations and demonstrations of student teachers on campus, driving to the center, spending the night, observing the student teacher during the school day, and driving back to the university. In the video tape method of supervision, the expenditure of time was based on meetings and conferences held for preparation of use of equipment, observation of presentations and demonstrations, completion of 30-minute telephone conferences (with the student teachers and cooperating teachers), and the observation of each video tape.

The results of Table III show video tape supervision to total 54.5 hours of the supervisor's time in relation to 166.5 hours of time for overnight visitation. An important expenditure of time occurs before the student teachers leave the university campus in the video tape method. These meetings and conferences, which total 5.5 hours, afforded the researcher an opportunity to know the student teachers better and allowed interaction to promote rapport which would be important in communication over the telephone in the later conferences. The estimation of 112 hours' difference in the two methods of supervision would allow time for the supervisor to work with specific problems of

TABLE III
EXPENDITURE OF TIME FOR VIDEO TAPE AND
VISITATION METHODS OF SUPERVISION

Allocation	<u>Student Teaching Centers</u>						Total	
	X		Y		Z			
	Hr.	Min.	Hr.	Min.	Hr.	Min.	Hr.	Min.
<u>Video Tape Supervision</u>								
Preparation Meetings & Conferences	5	30	5	30	5	30	16	30
Observation of Presentations and Demonstrations	-	50	-	50	-	50	2	30
Student Teacher Telephone Conf. (Ten 30-min. conferences)	5	-	5	-	5	-	15	-
Cooperating Tea. Telephone Conf. (Five or Three 30 min. conf.)	2	30	1	30	1	30	5	30
Viewing Video Tapes	5	-	5	-	5	-	15	-
Total	18	50	17	50	17	50	54	30
<u>Overnight Visitation</u>								
Observation of Presentations and Demonstrations	-	50	-	50	-	50	2	30
Group Meeting (Two hours)	-	40	-	40	-	40	2	-
Overnight Visitation (2 visits)	54	-	54	-	54	-	162	-
Total	55	30	55	30	55	30	166	30

certain student teachers. These difficulties could be observed and mentioned to the supervisor in a telephone conference with the cooperating teacher. A visit to the school would be agreed upon by the cooperating teacher, Director of Student Teaching, and university supervisor.

The cost expenditure (Table IV) was more difficult to determine and will be approximated for this study. The telephone conferences were made on the university WATS line, which is a full-time line for which the university is charged \$545 per month. This is approximately \$18.17 per day or 76 cents per hour. The cost of the video tapes will be different because there were two brands used in the study.

The Ampex one-inch video tape has a playing time of 62 minutes and costs \$59.95 per reel. This tape is expected to pass through the recorder approximately 250 times, if the equipment is in good condition. This means 24 cents per pass for the Ampex one-inch tape, or \$3.28 for the 12 passes required to make the four tapes, to play back for the student teachers, and to play back for the university supervisor. (One tape was not filmed due to technical difficulties.)

The Sony one-half-inch video tapes have a playing time of 60 minutes and cost \$39.95 per reel. This tape is expected to pass through the recorder approximately 500 times, if the equipment is in good condition. This means 8 cents per pass for the Sony one-half-inch tape, or \$1.20 for the 15 passes required to make the five tapes, to play back for the student teachers, and to play back for the supervising teacher.

The audio mixer and additional microphones were rented for one center only, which will be an additional cost to one center of \$8.50 for the four weeks the equipment was rented. This would be an

TABLE IV
COST EXPENDITURE OF VIDEO TAPE AND VISITATION
METHODS OF SUPERVISION

	<u>Student Teaching Centers</u>			
Expenditure	X	Y	Z	Total
<u>Video Tape Supervision</u>				
Student Teacher Telephone Conf.	\$3.80 (10)*	\$3.80 (10)	\$3.80 (10)	\$11.40
Cooperating Tea. Telephone Conf.	1.90 (5)	1.14 (3)	1.14(3)	4.18
Video Tapes	3.28	1.20	1.20	5.68
Audio Mixer & Microphones			8.50	8.50
Total	\$8.98	\$6.14	\$14.64	\$29.76
<u>Overnight Visitation</u>				
9¢/mile Round Trip	\$19.98	\$28.80	\$19.26	\$68.04
Lodging	9.78	6.44	6.18	22.40
Meals	3.97	3.97	2.75	10.69
Total/Visit	33.73	39.21	28.19	101.13
Total/2 Visits	\$67.46	\$78.42	\$56.38	\$202.26

*The number in parentheses is the number of 30-minute telephone conferences at 76 cents per hour.

additional cost to all schools, however, should this system of supervision be considered for future study by other interested persons.

The difference in cost expenditure for the two methods of supervision was \$172.50. The total for the video tape method of supervision was \$29.76 while the total cost of supervision with two visits to each center would be \$202.26. It is assumed the initial cost of the equipment for video taping and the cost of operation of this equipment would be absorbed by the school districts. It would be necessary for the success of the method that the Home Economics Education Department assume a portion of the cost in equipment purchased to be used for recording demonstrations and presentations in the techniques and materials class, training student teacher operators and playing back video tapes on the university campus.

Summary

The data collected for this study included the responses of student teachers and supervising personnel to either the rating scale used to evaluate the video tapes or the questionnaire used to evaluate the study as a whole. In general, the results of the rating scales correlated with the grades received by each of the six student teachers participating in the study. As a result of finding the averages for each category on the rating scale, the three categories receiving low averages and also comments during the telephone conferences were (1) mannerisms, (2) question for subject and student and (3) quality of thinking caused with questions and discussion. The student teachers and cooperating teachers agreed that video tape and telephone conferences are an adequate method of supervision and that if a visit is to

be made to the center by the supervisor, it be made at the end of the fourth or fifth week of student teaching. When estimating expenditures of time and cost for both methods of supervision--visitation and video tape--it was discovered that the video tape method is less expensive in both categories, providing the school district (student teaching center) has already purchased the equipment and is responsible for cost of operation and maintenance.

The next chapter will contain conclusions and recommendations based on the responses to the rating scale by the university supervisor and student teachers and the responses to the questionnaire by the six student teachers and three cooperating teachers and finally based on the experiences of the supervising teacher, who as researcher for this study participated in the procedure.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The main purpose of this study was to investigate the feasibility of supervision of Oklahoma State University Home Economics student teachers in various centers in the state through the use of video tapes and telephone conferences. The variables in the study were different supervision techniques using a combination of video tape recordings and visitation in two centers and video tape recordings exclusively in one center. During the five-week data collection period, video tapes were observed to detect change in the teaching skills of student teachers from the beginning of student teaching through the end of student teaching. These changes were discussed with the student teachers by the supervising teacher in telephone conferences following each video tape playback. An estimation of the expenditure of time and cost of supervision by visitation to student teaching centers as compared to video taped observations and telephone conferences was completed. The equipment used in this method of supervision was located in the center and owned by a school district. If this method were adopted, it would be necessary for the Department of Home Economics Education to purchase equipment for training the student teachers in the operation techniques as well as for use in the techniques and materials class and supervision in the seven weeks of student teaching.

The selection of participants in this study was based on availability of video tape equipment, location of school, interest of administration and cooperating teacher, and volunteer student teacher subjects. A schedule was developed by the researcher and followed throughout the five weeks of the data collection period. The tapes were filmed on a Wednesday or Thursday, mailed to the researcher on Thursday evening, viewed by the researcher on Monday and returned to the center.

Telephone conferences were held on five Monday nights for approximately 30 minutes with each of the six participating student teachers. These telephone conferences were held to compare the results of the rating scale completed by both the student teacher and the supervising teacher. The telephone conference was not limited to discussion of these scales, however. Other aspects discussed had to do with problems and successes encountered while student teaching.

Two of the student teaching centers were visited by the researcher one time during the seven weeks and one center was not visited at all by the researcher. It was necessary, however, for the director of student teaching to make a trip to the school that was originally designated to be unvisited. One trip was made to one center at the end of the second week of student teaching while in another center, the trip was made at the end of the fifth week.

The student teachers and cooperating teachers evaluated the study on an evaluation questionnaire after the data collection period. The conclusions and recommendations will be based on their response to the questionnaire and to the observation of the supervising teacher as researcher for this study.

Conclusions

The conclusions from this study will be discussed in three parts. Those that were made by the student teachers related to their participation in this method of supervision and will be discussed separately. The cooperating teachers' judgments will comprise a second section and the third section will be the conclusions drawn by the researcher.

Conclusions of student teachers:

1. Video tape playback is valuable in helping student teachers improve future lessons for the class.
2. Video tape helps student teachers become more aware of problems in oral communication.
3. Marking the self-evaluation form made the observation of the video tape more meaningful.
4. Seeing the video tape before mailing it and marking the self-evaluation form are important procedures in this method of supervision.
5. Video tape usage should be continued in the Techniques and Materials class for the purposes of self-evaluation.
6. Telephone conferences were helpful in evaluating student teacher progress.
7. Five video tapes is an adequate number to film in seven weeks of student teaching.
8. Additional microphones should be used with the video tape recording equipment whenever possible.
9. Mailing the tapes from the center to the university campus did not present any problems in maintaining a schedule.

Conclusions of the cooperating teacher:

1. Video taping the student teacher was valuable in helping her improve lesson presentations to the class.
2. Seeing the video tape before mailing it to the university campus is an important procedure in this method of supervision.
3. Video tapes should be continued as a method of self-evaluation in the Techniques and Materials class.
4. Telephone conferences were helpful in evaluating the progress of the student teacher.
5. Providing the student teacher a written critique of her presentation while viewing the video tape would be helpful.
6. Viewing a video tape motivated the student teacher to attempt to do something different when preparing for the next lessons.
7. Marking the rating scale helped the student teachers practice self-evaluation.
8. Satisfaction was achieved with the help obtained from the supervisor in this method of supervision.

Conclusions of the supervisor as researcher:

1. The areas in which the student teachers seemed to need the most improvement were mannerisms, questions for subject and student, and quality of thinking caused with questions and discussion.
2. The use of video tape playback seemed to cause the student teacher to be aware of these problems early in the seven weeks and allowed her an opportunity to begin correcting them the second week.
3. The student teacher may be nervous when being taped for the first time, but the presence of the equipment was neither distracting to the students nor to the student teacher as the study progressed.

4. The student teacher involved in video tape filming should expect to spend some additional time for filming the tape, watching the performance, and marking the self-evaluation form. For a 30-minute video tape, approximately an hour and fifteen minutes should be allowed.
5. Because the participants felt the video tape was worth the time spent, became aware of problems in oral communication, felt marking the self-evaluation form made the experience more meaningful and thought it would be helpful to see the performance more than once, having the student teacher see the tape twice before mailing it to the supervisor does not seem unrealistic.
6. It would be helpful for the student teacher to have a written critique of the presentation completed by the cooperating teacher while she views the tape.
7. The tapes were a valuable aid in helping student teachers improve their presentations, although a major weakness of the plan is the inability to observe interaction between pupils and teacher without the aid of additional sound equipment. In the one center where sound equipment was placed, the interaction was observed with clarity and thus added dimension to the playback.
8. The student teachers and cooperating teachers seemed satisfied with video tape and telephone conferences as a method of supervision based on their responses to the evaluation questionnaire.
9. If and when a visit is to be made to the student teaching center would depend on the circumstances at the center, the progress being made by the student teacher, and the recommendation of the visit by the cooperating teacher.

10. The use of video tape should be continued in the Techniques and Materials class so that with each taping sequence the student teacher may become more comfortable in front of the camera and begin to develop her ability to evaluate her own teaching performance.
11. Because the telephone conferences were agreed to be helpful, it is concluded that a 30-minute conference be continued periodically throughout student teaching whether a video tape is being used in the center or not.
12. The concept of the student teacher calling the supervisor should be more thoroughly stressed at the beginning of the student teaching period. This may allow an additional opportunity for contact between the two persons initiated by the student teacher.
13. Five video tapes for the group involved with this study seemed an adequate number for a seven-week period of student teaching.

Recommendations

The following recommendations are made to the Department of Home Economics Education and to the College of Home Economics at Oklahoma State University for further consideration in the use of video tape in teacher education.

1. The use of video tape should be continued in the Department of Home Economics Education at Oklahoma State University not only in the Techniques and Materials class but also in the supervision of student teachers.
2. For the future use of video tape in the supervision of student teachers, a rating scale should be developed from Riegel's form,

deleting the Introduction and Closing categories and adding categories dealing with questioning techniques, nonverbal communication, and interaction of teacher and students.

3. The continuation of the use of video tape would be more feasible if the Department owned equipment for the playback of the video tapes. If the Department owned equipment it could be used for eight weeks by student teachers during their classwork on campus as well as used by supervisors of student teachers during the eight weeks of the student teaching period. In addition to the equipment (camera, recorder, monitor, and microphone), a supply of video tapes would be necessary for mailing back and forth between the center and the university campus. The school systems should not be expected to supply the video tapes. Although the state has only nine schools used as centers for home economics student teachers with video tape at this time, the trend is for increased usage by school districts.
4. If video tape usage is continued in the five cooperating schools with the Ampex one-inch equipment and the four cooperating schools with the Sony one-half-inch equipment, it would be feasible for the long range goal of the Department to purchase a recorder and monitor for both types of equipment. If the video tapes are to be made in the student teaching centers, the supervisor on campus would need only a recorder and monitor to play back the tapes. One size could be decided upon for use in the Techniques and Materials class and the additional equipment, such as the camera and microphones, purchased.

5. It is of paramount importance that the student teachers be allowed to volunteer to participate in supervision with the use of video tape. Not every student teacher will want to participate and should not be a victim of circumstance. The schools owning equipment and the supervision process should be well publicized prior to the time the student teachers volunteer for their centers. If they are to be involved in this kind of supervision, they will need to be interested in the video taping process and know how to operate the equipment. The problems that arose in the video tape operation were in the center with the Ampex one-inch equipment. Their only contact with Ampex one-inch equipment was at the workshop given before the student teachers left the campus. The four student teachers that had been working with the Sony one-half-inch equipment had little difficulty in operating the equipment in the center. If both kinds of equipment were in the department, this familiarity with the operation could be taking place before the student teachers leave for the centers.
6. The rapport established between the supervisor and the student teacher before the student teacher leaves the campus is of great importance. At every opportunity, the supervisor should help the student teacher practice self-evaluation techniques in a personal situation. The telephone did not hamper the communication between the researcher and the six student teachers involved in this study.
7. If and when a visit is made to the center should be decided upon by the student teacher, cooperating teacher, supervising teacher and director of student teaching. As a result of this study, it is recommended that if the visit is necessary, it be made at either

the middle of the seven weeks (4th week) or toward the end of the fifth week. The visit by the supervisor should be avoided at the beginning weeks of student teaching.

8. The telephone conferences between the student teacher and the supervising teacher should be continued whether video tape is a part of the supervision system or not. The communication between the student teacher and supervising teacher is greatly increased because contact covers a wider period of time, based on a comparison of one phone call per week for five weeks with two visits to the center made approximately two weeks apart. This researcher recommends a special arrangement with the university PBX operator to allow supervisors of Home Economics Education to use the WATS line for an extended period after school hours. These calls were most successful when placed to the residence of the student teacher. There were no problems resulting from a call being placed to the home of two student teachers because one generally talked while the other occupied herself with other activities.
9. Because most school systems have purchased only one microphone to use with their video taping equipment, it is questionable at this point whether techniques such as Flander's Interaction Analysis could be successfully used by supervisors when viewing the playback. It was extremely difficult to hear the voices of the students when only a lavalier microphone was worn around the student teacher's neck. It is recommended that whenever possible, additional recording equipment be placed in the schools while the student teachers are being video taped. The sound equipment rented for use in this study was \$8.50 for two additional microphones, an

audio mixer, and the necessary connection cables. The equipment was in the center for one month.

Recommendations for Future Use of Video Tape
in the Department

1. Developing a video tape bank which would provide examples of various teaching techniques. These tapes could be available in the Learning Center of the College of Home Economics for check-out by student teachers to examine in relation to discipline problems, questioning techniques, discussion leadership, and demonstration techniques.
2. Utilizing video tape as a supplementation to the course content, both at the university and high school levels, to provide information normally sought through field trips, guest speakers, or demonstrations.
3. Including video tapes in graduate courses at the university level such as supervision of student teachers. Model tapes of supervisory conferences could be available for review and discussion by the graduate student members of the class.
4. Experimenting with various evaluation forms and rating scales to develop a means of evaluating video tapes. It would be helpful to have the viewpoints of the student teachers as well as cooperating teachers included in the agreed-upon form or scale.
5. Continuing the study of video tape usage in supervision of student teachers by comparing results of schools supervised with video tape and telephone conferences and schools supervised with video tape and written feedback. Future study should include a written critique of the lesson for the student teacher and supervising teacher completed by the cooperating teacher.

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APPENDIX A

EXPLANATION OF TABLES V THROUGH XXXVIII

The following 34 tables are the average evaluations made by the university supervisor and student teacher in each category of Riegel's rating scale. The abbreviation Univ. Sup. indicates University Supervisor while Stu. Tea. means Student Teacher. The numbers in a horizontal line preceding University Supervisor are the averages of the categories when evaluating video tapes for each of the six student teachers, A through F. The number in parentheses after the average shows the number of video tapes. For example, the average evaluation made by the university supervisor for Student Teacher A in the area of Students Interest is 3.33 with 3 video tapes for that particular student teacher.

The Ave. abbreviation is for average and is found in two columns. The horizontal column of averages is the combination of the university supervisor and student teacher responses. The vertical column of averages is an overall evaluation for 27 responses for the university supervisor and 27 responses for the six student teachers. The combination average totals 54 when combining the two groups of responses. When this number varies, i.e., 53, 52, or 51, it indicates to the reader that this category was not responded to by the university supervisor and student teacher 100 percent of the time.

TABLE V

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF STUDENTS INTEREST

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.33(3)	2.50(4)	3.60(5)	3.60(5)	3.40(5)	3.00(5)	3.26(27)
Stu. Tea.	3.00(3)	3.25(4)	3.40(5)	3.40(5)	3.40(5)	3.40(5)	3.33(27)
Ave.	3.17(6)	2.88(8)	3.50(10)	3.50(10)	3.40(10)	3.20(10)	3.30(54)

TABLE VI

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF STUDENTS DISCIPLINE

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.33(3)	2.50(4)	3.40(5)	3.25(4)	3.40(5)	3.20(5)	3.19(26)
Stu. Tea.	3.33(3)	2.75(4)	3.60(5)	3.20(5)	3.25(4)	3.20(5)	3.23(26)
Ave.	3.33(6)	2.63(8)	3.50(10)	3.22(9)	3.33(9)	3.20(10)	3.21(52)

TABLE VII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER APPEARANCE

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	3.00(4)	4.00(5)	3.60(5)	4.00(5)	4.00(5)	3.78(27)
Stu. Tea.	3.33(3)	2.75(4)	2.80(5)	3.40(5)	3.60(5)	3.00(5)	3.15(27)
Ave.	3.67(6)	2.88(8)	3.40(10)	3.50(10)	3.80(10)	3.50(10)	3.46(54)

TABLE VIII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER POISE

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.67(3)	2.75(4)	3.60(5)	3.60(5)	4.00(5)	3.60(5)	3.56(27)
Stu. Tea.	3.33(3)	3.00(4)	3.40(5)	3.40(5)	3.75(4)	2.80(5)	3.27(26)
Ave.	3.50(6)	2.88(8)	3.50(10)	3.50(10)	3.89(9)	3.20(10)	3.41(53)

TABLE IX

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER VOICE: TONE

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	2.00(4)	4.00(5)	4.00(5)	3.60(5)	2.80(5)	3.41(27)
Stu. Tea.	3.00(3)	2.75(4)	3.80(5)	3.00(5)	3.25(4)	3.00(5)	3.15(26)
Ave.	3.50(6)	2.38(8)	3.90(10)	3.50(10)	3.44(9)	2.90(10)	3.28(53)

TABLE X

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER VOICE: VOLUME

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	2.75(4)	4.00(5)	4.00(5)	3.60(5)	3.80(5)	3.70(27)
Stu. Tea.	3.00(3)	2.75(4)	4.00(5)	2.80(5)	4.00(2)	3.20(5)	3.25(24)
Ave.	3.50(6)	2.75(8)	4.00(10)	3.40(10)	3.71(7)	3.50(10)	3.49(51)

TABLE XI

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER SPEECH: CLEARNESS

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	3.75(4)	3.80(5)	3.60(5)	4.00(5)	4.00(5)	3.85(27)
Stu. Tea.	3.67(3)	3.30(4)	4.00(5)	2.60(5)	3.75(4)	3.20(5)	3.35(26)
Ave.	3.83(6)	3.38(8)	3.90(10)	3.10(10)	3.89(9)	3.60(10)	3.60(53)

TABLE XII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER SPEECH: GRAMMAR

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	3.75(4)	3.80(5)	3.80(5)	4.00(5)	3.40(5)	3.78(27)
Stu. Tea.	3.33(3)	2.50(4)	4.00(5)	2.80(5)	3.75(4)	2.80(5)	3.19(26)
Ave.	3.66(6)	3.13(8)	3.90(10)	3.30(10)	3.89(9)	3.10(10)	3.49(53)

TABLE XIII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER SPEECH: PRONUNCIATION

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	3.75(4)	3.80(5)	3.80(5)	4.00(5)	4.00(5)	3.89(27)
Stu. Tea.	3.33(3)	2.75(4)	4.00(5)	3.00(5)	3.67(3)	2.80(5)	3.24(25)
Ave.	3.67(6)	3.25(8)	3.90(10)	3.40(10)	3.88(8)	3.40(10)	3.58(52)

TABLE XIV

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER MANNERISMS

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	2.33(3)	2.00(3)	3.20(5)	2.00(5)	2.67(3)	2.50(4)	2.48(23)
Stu. Tea.	3.33(3)	2.75(4)	4.00(5)	3.00(5)	3.00(2)	2.75(4)	3.17(23)
Ave.	2.83(6)	2.43(7)	3.60(10)	2.50(10)	2.80(5)	2.63(8)	2.83(46)

TABLE XV

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER ENTHUSIASM

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.00(3)	2.50(4)	3.00(5)	2.80(5)	3.20(5)	3.40(5)	3.00(27)
Stu. Tea.	3.33(3)	3.00(4)	2.60(5)	3.00(5)	3.50(4)	3.00(5)	3.04(26)
Ave.	3.17(6)	2.75(8)	2.80(10)	2.90(10)	3.33(9)	3.20(10)	3.02(53)

TABLE XVI

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER SUBJECT MATTER: KNOWLEDGE OF

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.67(3)	3.00(4)	3.60(5)	3.00(5)	3.40(5)	3.40(5)	3.33(27)
Stu. Tea.	3.67(3)	2.50(4)	3.25(4)	3.00(5)	3.75(4)	3.00(5)	3.16(25)
Ave.	3.67(6)	2.75(8)	3.44(9)	3.00(10)	3.56(9)	3.20(10)	3.25(52)

TABLE XVII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF TEACHER SUBJECT MATTER: ACCURATENESS

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.67(3)	3.25(4)	3.60(5)	3.20(5)	3.20(5)	3.40(5)	3.37(27)
Stu. Tea.	3.67(3)	2.50(4)	3.25(4)	2.80(5)	4.00(2)	3.40(5)	3.17(23)
Ave.	3.67(6)	2.88(8)	3.44(9)	3.00(10)	3.43(7)	3.40(10)	3.28(50)

TABLE XVIII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON ORGANIZATION: TIMING

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.33(3)	2.75(4)	3.20(5)	3.00(5)	3.32(5)	3.40(5)	3.15(27)
Stu. Tea.	3.67(3)	3.25(4)	4.00(5)	2.60(5)	3.25(4)	3.20(5)	3.31(26)
Ave.	3.50(6)	3.00(8)	3.60(10)	2.80(10)	3.22(9)	3.30(10)	3.23(53)

TABLE XIX

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON ORGANIZATION: SEQUENCE OF LESSON

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.33(3)	2.75(4)	3.20(5)	3.00(5)	3.40(5)	3.75(4)	3.23(26)
Stu. Tea.	3.67(3)	3.25(4)	4.00(5)	3.00(4)	3.75(4)	3.60(5)	3.56(25)
Ave.	3.50(6)	3.00(8)	3.60(10)	3.00(9)	3.56(9)	3.67(9)	3.39(51)

TABLE XX

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON OBJECTIVES: CLEARNESS

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	3.75(4)	3.40(5)	3.60(5)	3.20(5)	3.20(5)	3.48(27)
Stu. Tea.	3.00(3)	3.00(4)	4.00(5)	3.40(5)	3.60(5)	3.40(5)	3.44(27)
Ave.	3.50(6)	3.38(8)	3.70(10)	3.50(10)	3.40(10)	3.30(10)	3.46(54)

TABLE XXI

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON OBJECTIVES: ATTAINMENT

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	1.50(2)	2.75(4)	3.25(4)	3.40(5)	3.00(3)	3.00(5)	2.96(23)
Stu. Tea.	3.33(3)	3.00(4)	3.67(3)	3.40(5)	3.50(4)	3.40(5)	3.38(24)
Ave.	2.60(5)	2.88(8)	3.43(7)	3.40(10)	3.29(7)	3.20(10)	3.17(47)

TABLE XXII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON OBJECTIVES: ADAPTED FOR
STUDENTS AND SUBJECT

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	3.25(4)	3.80(5)	3.80(5)	3.40(5)	3.80(5)	3.67(27)
Stu. Tea.	3.33(3)	2.67(3)	4.00(5)	3.40(5)	3.50(4)	3.80(5)	3.52(25)
Ave.	3.67(6)	3.00(7)	3.90(10)	3.60(10)	3.44(9)	3.80(10)	3.60(52)

TABLE XXIII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON INTRODUCTION: INTEREST

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	1.00(3)	1.50(4)	2.00(5)	1.20(5)	1.20(5)	1.00(5)	1.33(27)
Stu. Tea.	2.67(3)	2.25(4)	3.80(5)	3.00(4)	3.75(4)	3.00(5)	3.12(25)
Ave.	1.83(6)	1.88(8)	2.90(10)	2.00(9)	2.33(9)	2.00(10)	2.19(52)

TABLE XXIV

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON INTRODUCTION: LED INTO LESSON

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	1.00(3)	1.25(4)	2.00(5)	1.20(5)	1.40(5)	1.00(5)	1.33(27)
Stu. Tea.	3.00(3)	2.25(4)	3.80(5)	3.50(4)	4.00(3)	3.00(5)	3.25(24)
Ave.	2.00(6)	1.75(8)	2.90(10)	2.22(9)	2.38(8)	2.00(10)	2.24(51)

TABLE XXV

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON SUBJECT MATTER: SUITABILITY FOR STUDENTS

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	3.25(4)	4.00(5)	4.00(4)	4.00(5)	3.60(5)	3.81(26)
Stu. Tea.	3.33(3)	2.00(4)	3.80(5)	3.40(5)	3.40(5)	3.80(5)	3.33(27)
Ave.	3.67(6)	2.63(8)	3.90(10)	3.67(9)	3.70(10)	3.70(10)	3.57(53)

TABLE XXVI

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON SUBJECT MATTER: COVERAGE

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.67(3)	2.50(4)	3.40(5)	3.20(5)	3.20(5)	3.40(5)	3.22(27)
Stu. Tea.	3.00(3)	2.00(4)	4.00(5)	3.25(4)	3.67(3)	3.75(4)	3.30(23)
Ave.	3.33(6)	2.25(8)	3.70(10)	3.22(9)	3.38(8)	3.56(9)	3.26(50)

TABLE XXVII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON TEACHING TECHNIQUES: APPROPRIATENESS
OF QUESTIONS FOR SUBJECT AND STUDENT

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	2.67(3)	1.75(4)	3.00(5)	3.40(5)	3.20(5)	3.20(5)	2.93(27)
Stu. Tea.	3.33(3)	2.00(4)	2.20(5)	3.20(5)	3.20(5)	3.20(5)	2.85(27)
Ave.	3.00(6)	1.88(8)	2.60(10)	3.30(10)	3.20(10)	3.20(10)	2.89(54)

TABLE XXVIII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON TEACHING TECHNIQUES: QUALITY OF THINKING
CAUSED BY QUESTIONS AND DISCUSSION

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.33(3)	1.75(4)	2.80(5)	3.20(5)	3.00(5)	2.80(5)	2.70(27)
Stu. Tea.	3.00(3)	2.67(3)	2.00(3)	3.25(4)	3.33(3)	3.00(4)	2.86(21)
Ave.	2.67(6)	2.14(7)	2.44(9)	3.22(9)	3.13(8)	2.89(9)	2.77(48)

TABLE XXIX

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON TEACHING TECHNIQUES: SKILL IN
HANDLING TEACHING TECHNIQUE

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.00(3)	2.25(4)	3.40(5)	3.00(5)	3.40(5)	3.00(4)	3.04(26)
Stu. Tea.	3.00(3)	3.00(3)	3.40(5)	3.25(4)	3.33(3)	3.00(4)	3.18(22)
Ave.	3.00(6)	2.57(7)	3.40(10)	3.11(9)	3.38(8)	3.00(8)	3.10(48)

TABLE XXX

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON TEACHING AIDS: AID TO LEARNING

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	3.75(4)	3.40(5)	4.00(5)	3.80(5)	4.00(5)	3.81(27)
Stu. Tea.	3.67(3)	3.00(4)	4.00(4)	3.67(3)	1.33(3)	2.75(4)	3.10(21)
Ave.	3.83(6)	3.38(8)	3.67(9)	3.88(8)	2.88(8)	3.44(9)	3.50(48)

TABLE XXXI

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON TEACHING AIDS: STUDENT COMPREHENSION

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	2.67(3)	2.75(4)	2.50(4)	3.20(5)	3.00(5)	3.00(5)	2.88(26)
Stu. Tea.	4.00(3)	3.25(4)	4.00(4)	3.20(5)	1.00(2)	2.50(4)	3.14(22)
Ave.	3.33(6)	3.00(8)	3.25(8)	3.20(10)	2.43(7)	2.78(9)	3.00(48)

TABLE XXXII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON TEACHING AIDS: NEATNESS

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	2.00(4)	3.20(5)	2.60(5)	2.00(5)	2.80(5)	2.70(27)
Stu. Tea.	3.67(3)	3.00(4)	4.00(5)	2.80(5)	1.00(2)	3.00(4)	3.09(23)
Ave.	3.83(6)	2.50(8)	3.60(10)	2.70(10)	1.71(7)	2.89(9)	2.88(50)

TABLE XXXIII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON TEACHING AIDS: ADAPTED FOR SUBJECT

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	3.00(4)	3.40(5)	3.80(5)	3.80(5)	3.80(5)	3.63(27)
Stu. Tea.	4.00(3)	3.25(4)	4.00(5)	3.25(4)	1.33(3)	3.00(4)	3.22(23)
Ave.	4.00(6)	3.13(8)	3.70(10)	3.56(9)	2.88(8)	3.44(9)	3.44(50)

TABLE XXXIV

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON TEACHING AIDS: ADAPTED FOR STUDENTS

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	4.00(3)	2.25(4)	3.20(5)	4.00(5)	4.00(5)	3.60(5)	3.52(27)
Stu. Tea.	4.00(3)	3.25(4)	4.00(5)	3.25(4)	1.00(2)	3.00(4)	3.27(22)
Ave.	4.00(6)	2.75(8)	3.60(10)	3.67(9)	3.14(7)	3.33(9)	3.41(49)

TABLE XXXV

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON TEACHING AIDS: INTEREST

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	3.67(3)	2.25(4)	3.40(5)	3.60(5)	3.60(5)	3.60(5)	3.33(27)
Stu. Tea.	3.00(3)	3.25(4)	3.25(4)	3.25(4)	1.33(3)	2.50(4)	2.82(22)
Ave.	3.33(6)	2.75(8)	3.33(9)	3.44(9)	2.75(8)	3.00(9)	3.10(49)

TABLE XXXVI

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON CLOSING: GENERALIZATION,
SUMMARY OR EVALUATION

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	1.00(3)	1.00(4)	1.00(5)	1.00(5)	1.60(5)	1.60(5)	1.22(27)
Stu. Tea.	1.67(3)	1.00(4)	3.40(5)	3.00(4)	1.50(4)	1.25(4)	2.04(24)
Ave.	1.33(6)	1.00(8)	2.20(10)	1.89(9)	1.56(9)	1.44(9)	1.61(51)

TABLE XXXVII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON CLOSING: CLEARNESS OF ASSIGNMENT

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	1.00(3)	1.00(4)	1.00(5)	1.40(5)	1.60(5)	1.40(5)	1.26(27)
Stu. Tea.	1.67(3)	1.50(4)	1.60(5)	3.25(4)	1.00(3)	1.00(4)	1.70(23)
Ave.	1.33(6)	1.25(8)	1.30(10)	2.22(9)	1.38(8)	1.22(9)	1.46(50)

TABLE XXXVIII

AVERAGE EVALUATION BY THE UNIVERSITY SUPERVISOR AND STUDENT TEACHER
IN THE AREA OF LESSON CLOSING: APPROPRIATENESS
OF ASSIGNMENT FOR STUDENTS AND LESSON

	Student Teachers						Ave.
	A	B	C	D	E	F	
Univ. Sup.	1.00(3)	1.00(4)	1.00(5)	1.40(5)	1.60(5)	1.40(5)	1.26(27)
Stu. Tea.	1.00(3)	1.50(4)	1.60(5)	3.25(4)	1.00(3)	1.00(4)	1.61(23)
Ave.	1.00(6)	1.25(8)	1.30(10)	2.22(9)	1.38(8)	1.22(9)	1.42(50)

TABLE XXXIX
RESPONSES OF STUDENT TEACHERS TO QUESTIONNAIRE
FOR EVALUATION OF VIDEO TAPE STUDY

Questions	Yes	Prob- ably Yes	Unde- cided	Prob- ably No	No
1. When you were taped in the center for the first time, were you nervous?	2	1	-	2	1
2. Including filming the tape, watching your own performance, and marking your self-evaluation form, did you spend over 1½ hours in the total activity each time?	2	2	-	2	-
3. Do you think the use of video tape was worth the time spent?	4	2	-	-	-
4. Do you think it would be helpful to see your performance more than once?	3	2	1	-	-
5. Was the video tape valuable in helping you improve your presentation of lessons to the class?	5	-	-	1	-
6. Was the video tape valuable for observing interaction between pupils and teacher?	2	1	2	1	-
7. Would it have been helpful to have the cooperating teacher's written critique of your presentation while you viewed it?	3	3	-	-	-
8. Did your use of video tape make you more aware of your problems in oral communication?	5	1	-	-	-
9. Did marking a self-evaluation form make the video tape experience more meaningful?	-	5	-	-	1
10. On the basis of using video tape, do you think it motivated you to do anything different in preparing for your next lesson?	3	1	-	2	-

TABLE XXXIX (Continued)

Questions	Yes	Prob- ably Yes	Unde- cided	Prob- ably No	No
11. Do you think it was unfair of the supervising teacher to require you to see the video tape?	-	-	-	1	5
12. Do you think audiotaping would be as helpful as videotaping?	-	-	-	3	3
13. Do you think the TV picture and sound gave a fair representation of how you looked and sounded?	1	3	-	1	1
14. Do you think that videotaping your first lesson made any difference in how much or how you prepared for later tapes during the five weeks?	3	1	-	2	-
15. Do you think the presence of the equipment was distracting to your students while taping at the beginning of the five weeks?	2	2	-	2	-
16. Do you think the presence of the equipment was distracting to your students while taping at the end of the five weeks?	1	-	-	4	1
17. Was the presence of the equipment distracting to you?	-	1	-	2	3
18. Do you think that videotaping is a good technique to use in the Techniques and Materials class (HEED 4213)?	5	1	-	-	-
19. Did you ever have a higher opinion of your performance before seeing the tape than after seeing it?	1	1	1	2	1
20. Do you think it was unfair for the supervising teacher to require you to mark the self-evaluation form?	-	-	-	2	4

TABLE XXXIX (Continued)

Questions	Yes	Prob- ably Yes	Unde- cided	Prob- ably No	No
21. If you had not been asked to view the video tape before mailing it, do you think you would have done so anyway?	3	3	-	-	-
22. Were you satisfied with the help obtained from the supervising teacher through this method of supervision?	4	2	-	-	-
23. Do you feel a visit to the student teaching center by the supervising teacher is necessary?	1	2	-	2	1
24. If you could decide when to have the supervisor visit the center, would you prefer the end of the second week of student teaching?	-	-	1	2	3
25. If you could decide when to have the supervisor visit the center, would you prefer the end of the fifth week of student teaching?	-	2	2	1	1
26. Do you feel the telephone conferences were helpful in evaluating your progress?	5	1	-	-	-
27. Do you feel 30 minutes is enough time to allow for a telephone conference?	3	2	-	1	-
28. Was there any time you wanted to talk with the supervisor other than the regularly scheduled conference calls?	2	1	-	2	1
29. Do you feel that filming five video tapes was an adequate number?	5	1	-	-	-
30. Would you have preferred to talk with the supervisor more than five times?	1	-	1	3	1

TABLE XXXIX (Continued)

Questions	Yes	Prob- ably Yes	Unde- cided	Prob- ably No	No
31. Do you see any value in placing additional microphones in the classroom for recording students' voices?	5	1	-	-	-
32. Do you feel additional microphones in the classroom would be distracting to your students?	1	1	-	3	1
33. Was it time-consuming for you to prepare the tape for mailing and mail the tape?	-	-	-	6	-
34. Did the tape usually arrive at your student teaching center by Wednesday?	5	1	-	-	-
35. Did you ever replay the tape after the telephone conference with the supervising teacher?	2	-	-	-	4

TABLE XL
RESPONSES OF COOPERATING TEACHERS TO QUESTIONNAIRE
FOR EVALUATION OF VIDEO TAPE STUDY

Questions	Yes	Prob- ably Yes	Unde- cided	Prob- ably No	No
1. When the student teacher was taped for the first time, did she appear to be nervous?	2	2	-	-	2
2. Including filming the tape, watching her performance, and marking the self-evaluation form, did the student teacher spend over 1½ hours in the total activity each time?	4	-	-	1	1
3. Do you think the use of video tape was worth the time spent?	4	-	2	-	-
4. Do you think it would be helpful for the student teacher to see her performance more than once?	4	2	-	-	-
5. Was the video tape valuable in helping the student teacher improve her presentation of lessons to the class?	5	1	-	-	-
6. Was the video tape valuable for observing interaction between pupils and teacher?	3	-	2	1	-
7. Would it have helped the student teacher to have your written critique of her presentation while she viewed her video tape?	-	5	1	-	-
8. Did the use of the video tape make the student teacher more aware of problems in oral communication?	2	1	2	1	-
9. Did marking a self-evaluation form make the video tape experience meaningful for the student teacher?	2	3	1	-	-

TABLE XL (Continued)

Questions	Yes	Prob- ably Yes	Unde- cided	Prob- ably No	No
10. On the basis of using video tape, do you think it motivated the student teacher to do anything different in preparing for the next lesson?	5	1	-	-	-
11. Do you think it was unfair of the supervising teacher to require the student teacher to see the videotape?	-	-	-	-	6
12. Do you think audiotaping would be as helpful as videotaping?	2	-	2	-	2
13. Do you think the TV picture and sound gave a fair representation of how the student teacher looked and sounded?	3	1	-	-	2
14. Do you think that videotaping the first lesson made any difference in how the student teacher prepared for later tapes during the five weeks?	4	1	1	-	-
15. Do you think the presence of the equipment was distracting to the pupils while taping at the beginning of the five weeks?	2	4	-	-	-
16. Do you think the presence of the equipment was distracting to the pupils while taping at the end of the five weeks?	2	-	-	-	4
17. Was the presence of the equipment distracting to the student teacher?	-	1	2	1	2
18. Would you recommend we continue to use video tape in the Techniques and Materials class during the eight weeks prior to student teaching?	6	-	-	-	-

TABLE XL (Continued)

Questions	Yes	Prob- ably Yes	Unde- cided	Prob- ably No	No
19. Do you think the student teacher ever had a higher opinion of her performance before seeing the tape than after seeing it?	3	3	-	-	-
20. Do you think it was unfair of the supervising teacher to require the student teacher to mark the self-evaluation form?	-	-	-	-	6
21. If the student teacher had not been asked to view the video tape before mailing it, do you think she would have done so anyway?	4	1	-	1	-
22. Were you satisfied with the help obtained from the supervising teacher through this method of supervision?	6	-	-	-	-
23. Do you feel a visit to the student teaching center by the supervising teacher is necessary?	2	2	2	-	-
24. If you could decide when to have the supervisor visit the center, would you prefer the second week of student teaching?	2	2	1	1	-
25. If you could decide when to have the supervisor visit the center, would you prefer the fifth week of student teaching?	4	1	1	-	-
26. From your contacts with the student teachers, did you feel the telephone conferences were helpful?	6	-	-	-	-
27. and 28. (On student teacher questionnaire only)					
29. Do you feel filming five video tapes was an adequate number?	4	2	-	-	-

TABLE XL (Continued)

Questions	Yes	Prob- ably Yes	Unde- cided	Prob- ably No	No
30. (On student teacher questionnaire only)					
31. Do you see any value in placing additional microphones in the classroom for recording pupils' voices?	6	-	-	-	-
32. Do you feel additional microphones in the classroom would be distracting to your students?	-	4	-	2	-
33. Was it time-consuming for the student teacher to prepare the tape for mailing and mail the tape?	-	1	-	3	2
34. Did the tape usually arrive at your student teaching center by Wednesday?	6	-	-	-	-
35. Did the student teacher ever replay the tape after the telephone conference with the supervising teacher?	-	-	2	-	4

APPENDIX B

LESSON EVALUATION OF _____

DATE _____

Superior example,
 no work needed
 Adequate, but
 could be better
 Needs work in
 this area
 Non-existent
 in lesson

STUDENTS		4	3	2	1
1. Interest					
2. Discipline					
TEACHER					
1. Appearance					
2. Poise					
3. Voice	A. Tone				
	B. Volume				
4. Speech	A. Clearness				
	B. Grammar				
	C. Pronunciation				
5. Mannerisms					
6. Enthusiasm					
7. Subject Matter	A. Knowledge of				
	B. Accurateness				
LESSON					
1. Organization	A. Timing				
	B. Sequence of lesson				
2. Objectives	A. Clearness				
	B. Attainment				
	C. Adapted for students and subject				
3. Introduction	A. Interest				
	B. Lead into lesson				
4. Subject Matter	A. Suitability for students				
	B. Coverage				
5. Teaching Techniques	A. Appropriateness of questions for subject and student				
	B. Quality of thinking caused by questions and discussion				
	C. Skill in handling teaching technique				
6. Teaching Aids	A. Aid to learning				
	B. Student comprehension				
	C. Neatness				
	D. Adapted for subject				
	E. Adapted for students				
	F. Interest				
7. Closing	A. Generalizations, summary or evaluation				
	B. Clearness of assignment				
	C. Appropriateness of assignment for students and lesson				

HOME ECONOMICS EDUCATION
DIVISION OF HOME ECONOMICS
OKLAHOMA STATE UNIVERSITY

EVALUATIONS OF PRESENTATIONS

Total Score _____

Name _____

Evaluator's Name _____

PERSONAL CHARACTERISTICS

1 2 3 4 5 6 7 8 9 10

pleasant, clear voice; correct
pronunciation and grammar; nat-
uralness; communicates effec-
tively verbally and non-verbally

CONTENT

1 2 3 4 5 6 7 8 9 10

demonstrated knowledge of the sub-
ject; developed an idea in depth
and/or clearly demonstrated a
skill; logical and cohesive;
smooth transition from previous
idea

THOUGHT-PROVOKING

1 2 3 4 5 6 7 8 9 10

interesting and creative approach;
likely to motivate students and
lead to further thought

RAPPORT WITH CLASS

1 2 3 4 5 6 7 8 9 10

friendly and enthusiastic; seemed
to encourage class participation;
accepted and used student ideas

ACHIEVEMENT OF OBJECTIVES

1 2 3 4 5 6 7 8 9 10

class accomplished what was
intended

July 25, 1970

Superintendent
Public Schools
Oklahoma

Dear (Superintendent),

Beginning October 26, two of our home economics education seniors will begin their student teaching with _____ at _____ High School. As their supervisor in Home Economics Education from O.S.U., I will be visiting the school during their student teaching experience from October 26 through December 15.

In conjunction with my supervision of the student teachers, I am interested in collecting data for my Master's thesis problem. My interest is with video tape and the possibilities it holds for supervision of home economics student teachers.

Would it be possible for me to visit with you concerning this study on Thursday, _____. I would like to schedule three appointments during the same morning. In addition to seeing you, I would like to talk with the principal, _____, and the home economics teacher, _____. I would like to follow the schedule below:

10:00 -- _____

10:30 -- _____

11:00 -- _____

Would you please return the enclosed post card to notify me whether or not you are available on this date?

I am looking forward to seeing you.

Sincerely,

s/ Sandra Robinson

FALL SEMESTER STUDENT TEACHING 1970

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Week 1	October 26	October 27	October 28	October 29	October 30
Week 2	November 2	November 3	November 4 Film one hour video tape OR	November 5 Film one hour video tape MAIL TAPE	November 6 Visit Center C PICK UP TAPE
Week 3	November 9 Playback & Telephone Conference MAIL TAPE	November 10	November 11 Film one hour video tape OR	November 12 Film one hour video tape MAIL TAPE	November 13
Week 4	November 16 Playback & Telephone Conference MAIL TAPE	November 17	November 18 Film one hour video tape OR	November 19 Film one hour video tape MAIL TAPE	November 20
Week 5	November 23 Playback & Telephone Conference MAIL TAPE	November 24	November 25	November 26 THANKSGIVING VACATION	November 27
Week 6	November 30	December 1	December 2 Film one hour video tape OR	December 3 Film one hour video tape MAIL TAPE	December 4 Visit Center B PICK UP TAPE
Week 7	December 7 Playback & Telephone Conference MAIL TAPE	December 8	December 9 Film one hour video tape OR	December 10 Film one hour video tape MAIL TAPE	December 11
	December 14 Playback & Telephone Conference	December 15	STUDENT TEACHERS RETURN TO CAMPUS		

Center A will not be visited by the university supervisor.

QUESTIONNAIRE

Anthony John Mulac, 1968

AN EXPERIMENTAL STUDY OF THE RELATIVE PEDAGOGICAL EFFECTIVENESS
OF VIDEOTAPE AND AUDIOTAPE PLAYBACK OF STUDENT SPEECHES
FOR SELF-ANALYSIS IN A BASIC SPEECH COURSE

1. Did you know that you were being video taped?
2. If you did know that you were being video taped, did that knowledge make you more nervous?
3. If you did not know you were being video taped do you think that such knowledge would have made you more nervous during the video taping?
- *4. Including watching your own performances and writing your self-evaluation did you spend over one hour (changed to 1½ hours) in the total activity? (2)
- *5. Do you think that this use of video tape was worth your time spent? (3)
6. Did you see your performance twice and that of another student once?
- *7. Do you think that it would be helpful to see your performance more than twice (changed to once)? (4)
- *8. Was video tape valuable for delivery (changed to improving your presentation)? (5)
9. Was it valuable for composition?
10. Was it helpful to see the performance of another classmate?
11. Would it have been just as valuable if you had not been asked to write a written self-critique?

12. Would it have been helpful if we had taped your first speech for you to see and hear?
13. Would you like to be able to practice a speech and have it video taped for you to see before giving it in a class?
14. Did viewing the tape in Roosevelt 108 prove distracting?
- *15. Would it have been helpful to have the instructor's (changed to cooperating teacher's) written critique on your speech (changed to lesson) while you watched it? (7)
- *16. Did this experience make you more aware of your problems in oral communication? (8)
17. After seeing yourself do you find that you disagree with some of the criticisms made by the instructor?
- *18. Did writing (changed to marking) a self-evaluation make the video tape experience more meaningful? (9)
- *19. On the basis of it do you think that you will actually do anything different in preparing for your final speech (changed to next lesson)? (10)
- *20. Do you think that it was unfair for your instructor (changed to supervising teacher) to require you to see the tape? (11)
21. Was the engineer at the viewing studio in Roosevelt helpful?
- *22. Do you think audiotaping (just sound) would be as valuable as video taping? (12)
- *23. Do you think that the TV picture and sound gave a fair representation of how you looked and sounded? (13)
- *24. Do you think that video taping of your first speech (changed to lesson) made any difference in how much or how you prepared for later speeches (changed to lessons) during the semester? (14)

- *25. If this speech recording had been done in the classroom do you think that the presence of the camera would have been distracting? (15)
- 26. Did basic principles of speech seem to apply to this speech via television?
- *27. Do you think that video taping is generally a good technique in a fundamentals of speech course (changed to Techniques and Materials class)? (18)
- *28. Did you have a higher opinion of your performance before you saw the tape than you had after seeing it? (19)
- *29. Do you think that it was unfair for the instructor (changed to supervising teacher) to require you to write (changed to mark) a self-evaluation? (20)
- *30. If you had not been required to see this video tape (add before mailing it) do you think that you would have done so anyway? (21)

*Indicates question used by this researcher in final evaluation of video tape study.

() Indicates number of question on questionnaire used by this researcher.

VITA

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Sandra Neese Robinson

Candidate for the Degree of

Master of Science

Thesis: A FEASIBILITY STUDY IN THE USE OF VIDEO TAPE AND TELEPHONE
CONFERENCES FOR THE SUPERVISION OF HOME ECONOMICS STUDENT
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Major Field: Home Economics Education

Biographical:

Personal Data: Born in Florence, Arizona, October 15, 1941, the
daughter of Mr. and Mrs. Phillip A. Neese; married to
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Education: Graduated from Yuma High School, Yuma, Arizona, in May
1959; received the Bachelor of Science degree from the
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Economics Education; completed the requirements for the
Master of Science degree at Oklahoma State University in May
1971 with a major in Home Economics Education.

Professional Experience: Taught home economics at Casa Grande High
School, Casa Grande, Arizona, 1963-1965; Lindsay Junior High
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School, Manhattan, Kansas, 1967-1969; graduate teaching
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Professional Organizations: American Home Economics Association,
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