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SIMULATION VERSUS CASE STUDY STRATEGY FOR
DEVELOPING PRE-SERVICE TEACHER VERBAL
COMMUNICATION COMPETENCY

DISSERTATION
Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
Kathryn Mary Davison, B.S., M.Ed.

* * * * *

The Ohio State University
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CHAPTER I

INTRODUCTION

"The concept of competency-based teacher education has emerged from the emphasis on goal orientation and individualization," stated Houston and Howsam (1972, p. 3). Three characteristics are essential to the competency-based teacher education concept: 1) criteria identification that reflects behaviors necessary for overall competency attainment, 2) specific learning objectives defined in behavioral terms which are known to all participants, and 3) acceptance of the responsibility by learners for development of behaviors stated in the objectives through participation in a variety of learning experiences which provide evidences of progress toward competency development.

Major focus of the competency-based teacher education concept is placed on acquiring the abilities to perform as well as the knowledge required in desired performance objectives. By specifying desired exit level competencies, the scope and sequence of alternative learning situations may be developed to facilitate learner attainment of performance standards.
Inherent in this approach is the opportunity for learners to select relevant resource modules and materials, self-pace the learning time, and select alternative learning experiences within the module which lead to mastery of the required performance objectives. Designs for competency-based teacher education programs demand a complex variety of instructional materials and modules.

**Need for the Study**

Professionals in the Home Economics Teacher Education Section of the American Home Economics Association have identified five areas of competencies needed for undergraduate home economics education students. In a series of seminar workshops, conducted over a period of years between 1962 to 1974, selected authorities in home economics teacher education have developed and refined concepts, objectives and generalizations, and global competencies and criteria for assessing achievement which serve as a guide in planning and implementing pre-service teacher education programs (American Home Economics Association, 1964, 1968, 1974).

At the most recent workshop in March 1974 selected home economics teacher educators and subject matter specialists recommended the competency clusters of Educational Philosophy in Home Economics, Professional Role in Home Economics, Program Planning for Education in Home Economics, The Educative Process in Home Economics, and Research in Home
Economics and Education (1974). Descriptive criteria which designate those global behaviors acceptable as evidences of competency achievement were also reported by the same group of professionals.

Within the educative process cluster of competencies, the teacher education professionals identified communication skills as one of the five major competencies recommended for inclusion in a pre-service program. The ability to interpret facts and events in terms understood by classroom students depends a great deal upon knowledge of and proficiency in teacher verbal communication.

The results of the workshop included only one aspect of competency-based teacher education; the competencies and criteria for describing achievement of those overall competencies. At present, no comprehensive means of instruction and assessment procedures have been developed. Before the competencies can be used as a basis for determining professional readiness, instructional programs and instructional modules and materials need to be designed and tested.

"Currently the technique of simulation is being tested to meet the criterion of realism as well as to provide a setting wherein trainees may practice a wider range of teaching behavior without fear of censure or failure," stated Cruickshank (1966, p. 23). Simulation is a teaching-learning strategy which allows the student to apply theoretical knowledge and understandings to selected aspects of teaching
in a controlled situation. Within this controlled situation, the learner can demonstrate alternative patterns of behavior and analyze the consequences of those behavior patterns. As a result, the learner is encouraged to control intellectually his or her teaching behavior.

Robinson (1966) recommended simulation strategies as effective instructional alternatives for cognitive, affective, and psychomotor competency development. Simulation strategies can be used to promote the acquisition and use of principles, develop decision-making skills, recognize cues in the form of signals and other stimuli which influence teaching behavior patterns, and develop integrated task performances. In the realm of affective outcomes, simulation strategies have the potential for increasing learner involvement and motivation as well as developing positive attitudes of the learner toward self, others, and the teaching role.

In a recent study, Kersh (1965) found that students involved in simulation experiences were able to assume teaching responsibilities in a shorter time period than those students not having such simulation experiences. Vlcek (1965) and Weinberger (1965) also reported that simulation strategies increased participant teaching confidence levels as well as modified positively the teaching behaviors displayed during the student teaching experience.
Cruickshank reported five of the most common justifications for including simulation strategies in a pre-service teacher education program.

Participants consider the simulation experience stimulating and highly motivating.

Simulation allows participants to encounter and play out instructional problems much earlier than they normally would be encountered and in a much shorter time span.

Simulation allows the participant opportunity, without fear of reproof, for unfettered practice of principles he has learned in education courses.

Participants become acquainted with school records, regulations, and children in meaningful ways.

Participants encounter teaching problems and engage in problem-solving activities which may reduce the intensity or number of problems they will face as first-year teachers (1966, p. 24).

Simulation is a teaching-learning strategy with much promise but limited proof of effectiveness. As Twelker stated, "When attempting to identify the learning outcomes served by simulation, a particular benefit may or may not be dependent on other factors such as personal and educational background of the individual instead of the type of simulation" (1971, p. 158). These strategies may interact with education or experience background factors other than those included in the simulation to produce results which are evidences of competency achievement.

However, when used as a transitional technique, simulation strategies can sensitize students to the social and
psychological pressures common in a classroom situation which aids the student to identify acceptable teaching behavior patterns in given situations. Pollack stated, "Simulation techniques used in this context can provide a "set" and "advance organizer" which directs the attention of the student to those areas considered most important in the field experience" (1973, p. 32).

Simulation may be a feasible alternative to the commonly used case study strategy which is widely used in teacher education. As a comparison strategy, case studies help to vicariously acquaint prospective teachers with the teaching role. The case study strategy has provided opportunities for students to intellectually explore and determine possible behaviors required in a given teaching situation, without actually demonstrating behaviors.

If simulation instructional modules are developed and tested for use in a pre-service home economics teacher education program, a valuable teaching-learning strategy which aids students to develop the desired competencies has been created. Thus, a next step has been accomplished in identifying teaching-learning procedures for the purpose of developing professional readiness to enter the student teaching phase of the pre-service program.
Statement of the Problem

The major purpose in this study was to develop and test a simulation strategy designed to facilitate student achievement of competencies associated with teacher verbal communication. Specific questions to answer were:

1. Is there a difference between posttest performance scores on the abilities related to teacher verbal communication for a group of students who experience a simulation strategy and a group of students who experience a case study strategy?

2. Is there a relationship between student performance gain scores on teacher verbal communication and
   a. cumulative grade point average?
   b. home economics courses grade point average?
   c. number of home economics courses completed?
   d. number of previous leadership experiences?
   e. student perceived quality of previous leadership experiences?
   f. number of previous teaching experiences?
   g. student perceived quality of previous teaching experiences?

3. Is there a difference in teaching confidence posttest scores for a group of students who experience a simulation strategy and a group of students who experience a case study strategy?

4. Is there a relationship between student gain scores on teaching confidence and
   a. cumulative grade point average?
   b. home economics courses grade point average?
   c. number of home economics courses completed?
   d. number of previous teaching experiences?
   e. student perceived quality of previous teaching experiences?
   f. number of previous leadership experiences?
   g. student perceived quality of previous leadership experiences?

In answer to these questions the research hypotheses investigated were:
1. Students who experience a simulation strategy will show a higher performance posttest score on teacher verbal communication abilities than students who experience a case study strategy.

2. There is a positive relationship between performance gain scores on teacher verbal communication abilities for students who experience a simulation strategy and
   a. cumulative grade point average.
   b. home economics courses grade point average.
   c. number of home economics courses completed.
   d. number of previous teaching experiences.
   e. student perceived quality of previous teaching experiences.
   f. number of previous leadership experiences.
   g. student perceived quality of previous leadership experiences.

3. There is a positive relationship between performance gain scores on teacher verbal communication abilities for students who experience a case study strategy and
   a. cumulative grade point average.
   b. home economics courses grade point average.
   c. number of home economics courses completed.
   d. number of previous teaching experiences.
   e. student perceived quality of previous teaching experiences.
   f. number of previous leadership experiences.
   g. student perceived quality of previous leadership experiences.

4. Students who experience a simulation strategy will show a higher posttest score on teaching confidence than students who experience a case study strategy.

5. There is a positive relationship between gain scores on teaching confidence for students who experience a simulation strategy and
   a. cumulative grade point average.
   b. home economics courses grade point average.
   c. number of home economics courses completed.
   d. number of previous teaching experiences.
   e. student perceived quality of previous teaching experiences.
   f. number of previous leadership experiences.
g. student perceived quality of previous leadership experiences.

6. There is a positive relationship between gain scores on teaching confidence for students who experience a case study strategy and

a. cumulative grade point average.
b. home economics courses grade point average.
c. number of home economics courses completed.
d. number of previous teaching experiences.
e. student perceived quality of previous teaching experiences.
f. number of previous leadership experiences.
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Assumptions

The following assumptions undergird this study:

1. Teacher verbal communication abilities are appropriate and necessary to the development of a home economics teacher.

2. A simulation strategy can be developed which will focus on those behavior patterns specific to teacher verbal communications.

3. Students can be observed and assessed in their performance of teacher verbal communication abilities prior to and after a simulation or case study strategy.

4. The course, Methods of Teaching Home Economics, is an appropriate setting in which to experience a simulation or case study strategy designed to develop teacher verbal communication abilities.

Limitations

The following limitations in this study were recognized by the investigator:

1. Since teaching confidence and the quality ratings of previous teaching and leadership experiences were based on student perceptions, the data
collected were limited to how able participants were in assessing the previous experience and teaching confidence levels on instrument items.

2. Even though the panel of judges was selected according to criterion standards and specific training was provided, the ratings of student performances on teacher verbal communication abilities were a result of subjective judgments.

**Definition of Terms**

The following terms are defined as they are used in this study:

**Case Study Strategy**: a planned group of instructional activities and supplementary instructional materials organized to aid students in the learning process. The students have opportunities to participate in a systematic program of instruction with exposure to an illustrated lecture, analysis of descriptive home economics teaching situations, and small group discussions of possible teacher verbal communication behaviors to use in the teaching situation.

**Competency-Based Teacher Education**: a special designation for an educational approach, a movement to educate toward predetermined outcomes in home economics education courses (Houston and Howsam, 1972, p. 3).

**Competency**: an overall attitude, understanding, skill, ability, or behavior that facilitates intellectual, social, emotional, and physical growth in home economics education students (Elfenbein, 1972, p. 18).

**Learning Objective**: an explicit statement of a desired behavior to be performed by a home economics education student as an overt sign of successful completion of learning activities (Houston and Howsam, 1972, p. 17).

**Instructional Module**: an instructional package dealing with a single conceptual unit of subject matter in home economics teacher verbal communication (Russell, 1974, p. 3).

**Micro-Lesson**: a brief period of instruction in home economics subject matter involving five-to-ten minutes, presented to high school age youth, which can
be recorded and reviewed by observers. The lesson is designed to reflect participant teaching behavior patterns in relation to teacher verbal communication competencies (Jensen, 1974, p. 6).

**Simulation:** a learning context where the process creates a model, replication, or adequate reproduction of a junior or senior high school home economics classroom situation. It is the process of constructing an operational model of an individual or group interaction which allows experimentation by manipulation of teacher verbal communication behaviors.

**Simulation Strategy:** a planned group of instructional activities and supplementary instructional materials organized to form a model or replication of a home economics teaching situation. The students have opportunities to participate in a system of classroom interactions by viewing video tape recordings, role playing, and discussing of behavior patterns in relation to predetermined standards.

**Teacher Verbal Communication Abilities:** those verbal teaching behavior patterns used by home economics student teachers to transmit messages to students in the home economics classroom.

**Teacher Verbal Communication Performances:** those overt behavior patterns, displayed by the student during the micro-lesson presentation, which are evidences of competency attainment.

**Teaching Confidence:** student perceived self-confidence in teacher verbal communication abilities appropriate for the student teaching situation.
CHAPTER I

REVIEW OF LITERATURE

The review of related literature presented in this chapter is arranged in four sections: 1) Competency-Based Teacher Education, 2) Competencies Specific to Home Economics Teacher Education, 3) Selection of Abilities Used in a Simulation Strategy, and 4) Purpose and Use of a Simulation Strategy in Teacher Education. Each of these topics is reviewed in order to give support to an alternative strategy useful in educating prospective home economics teachers toward ultimate competency attainment.

The rationale, conceptual system, and thrust of competency-based teacher education has received widespread attention from teacher educators. Literature reviewed in this section illustrates a foundation for designing instructional-learning modules for prospective home economics teachers which will educate toward teaching knowledge, behaviors, and abilities.

The section on competencies specific to home economics education clarifies those competencies and accompanying criteria recognized by those in the professional association as
being important in the home economics teacher education programs. Review of the related literature establishes the conceptual system upon which home economics teacher education programs are based.

The topic Selection Of Abilities Used In A Simulation Strategy is included to report the relevant research which determined selection of specific teacher verbal communication abilities.

Purpose And Use Of A Simulation Strategy In Teacher Education was reviewed to explore the use of simulation in a pre-service home economics teacher education program. The literature reviewed illustrates ways simulation has been used as an instructional alternative in teacher education.

Competency-Based Teacher Education

A systems approach called competency-based teacher education is attracting much attention from teacher educators. Houston and Howsam commented:

"Rarely, if ever, has any movement swept through teacher education so rapidly or captured the attention of so many in so short a time as has the competency-based movement. Already underway, the approach holds promise of renovating and regenerating teacher education. Equally significant, it appears probable that it will do so in record-setting time (1972, p. viii)."

No entirely satisfactory description of competency-based education has been framed to date. In fact, the term itself is a focus of disagreement among educational authorities. Performance-based as well as competency-based are
the two terms which have been proposed to designate the movement. However, Cooper and Weber have offered a comprehensive definition as follows:

A competency-based, or performance-based, teacher education program is a program in which those competencies to be acquired by the student and the criteria to be applied in assessing the competency of the student are made explicit and the student is held accountable for meeting those criteria (1972, p. 4).

According to Elfenbein, competencies refer to "attitudes, understandings, skills, behaviors, and abilities that facilitate intellectual, social, emotional, and physical growth in students" (1972, p. 18). The learner is held responsible not only for acquiring knowledge about the teaching process, but also must develop abilities to apply that knowledge in the performance of teaching skills and behaviors.

In determining teacher competencies, Cooper and Weber (1972) suggested three categories of competencies which depict the teaching role: 1) knowledge criteria, 2) performance criteria, and 3) product criteria. Knowledge criteria refer to those cognitive understandings necessary in the teaching role. Performance criteria are those evidences of abilities necessary to produce the desired achievement by recipients of the teaching act.

In comparison, Houston identified four areas of competencies for teachers: "1) aptitudes and attitudes, 2)
technical skills, 3) decision-making abilities, and 4) capacity for professional growth" (1972, p. 91).

The first category, aptitudes and attitudes, is included early in a teacher education candidate's program. The individual aptitude for learning what he or she will be teaching, content, and technical skills may be part of the decision-making process in screening the prospective teacher. Assessing aptitude for technical skills, for example, might be accomplished by having the candidate teach the same lesson a number of times, with some lessons followed by personal assessment and others critiqued by an observer.

Houston suggested that "decisions based on these assessments are typically tempered by the amount and quality of information available, consequences of the decision, and reversibility of the decision" (1972, p. 94).

The second aspect of measuring teaching and technical skills refer to the most elemental teaching skills. Ability to establish instructional set for a lesson, implement basic plans, obtain closure, and communicate with students using a variety of teaching-learning strategies are suggestive of the modules to include in this phase of a teacher education program.

Payatte (1972) clarified the third area of competencies relating to the integration of the various technical skills and their application with a specific group of students. This process may be accomplished through simulation where an
individual is provided with data and asked to respond. Instruction of this sort can be used to develop skills relating to abilities to plan, to structure knowledge, and to attain general decision-making behaviors. Microteaching, as reported by Jensen (1974), extends the student involvement and provides another procedure for developing and assessing decision-making skills and integrating those skills with teaching skills.

The fourth level, capacity for professional growth, would require an extended period to note stability of performance, adaptability to changing conditions and the growth curve. "In essence, this on-the-job assessment can be an integral part of the student teaching practicum" stated Payatte (1972, p. 445).

Competencies Specific to Home Economics Teacher Education

Defining concepts, objectives and generalizations, and ultimate competencies for home economics teacher education programs has been a major focus of the Teacher Education Section members of the American Home Economics Association for the past several years (1964, 1968, 1974). In 1972 teacher educators identified as an important objective the establishment of competencies and criteria for educational programs in home economics education.

A committee of professionals sponsored a survey to determine the status of competency-based teacher education
programs. A series of workshops under the direction of the American Home Economics Teacher Education members was organized. As a result of one workshop, selected competencies and accompanying criteria were determined and reported. Competency statements and criteria were organized to include beginning and advanced levels in order to serve as guidelines for both pre- and in-service teacher education programs.

The five topic areas, which denote global competency clusters, as reported by the Teacher Education Section professionals in the American Home Economics Association are:

I. Educational Philosophy in Home Economics
II. Professional Role in Home Economics
III. Program Planning for Education in Home Economics
IV. The Educative Process in Home Economics

Within the cluster of The Educative Process In Home Economics, the technical and teaching skills and behaviors appropriate to a methods class are included. Those specific competencies, as reported by members of the American Home Economics Association Teacher Education Section members are:

A. The participant will use communication skills in an educative setting to facilitate learning.

B. The participant will design instructional plans appropriate to the needs of specific learners in educative settings.
C. The participant will implement instructional plans.

D. The participant will plan for and use evaluation as an integral part of the teaching-learning process.

E. The participant will establish and maintain an environment that facilitates achievement of objectives (1974, p. 14).

Appropriate criteria for each ultimate competency were reported by the Teacher Education membership of the American Home Economics Association which designate those appropriate behaviors that will be used to assess competency achievement. Criteria specific to the communication skills are:

1. Does the participant demonstrate skill in establishing and maintaining open communication?

2. Does the participant communicate by using appropriate verbal and nonverbal cues?

3. Does the participant demonstrate skills in dealing with negative feedback in ways that produce positive behavior and enhance the self-esteem of learners?

4. Is the participant clear, concise, and consistent in communicating written, oral, and nonverbal messages?

5. Does the participant use and adapt language, vocabulary, and communication techniques appropriate to the group?

6. Does the participant use the results of continuous self-appraisal to improve and/or maintain verbal and nonverbal communication skills? (1974, p. 15).
An important aspect of the educative process in home economics teaching is the ability to communicate in an appropriate manner so that students in the classroom can accomplish desired objectives. The findings from several studies suggest that teaching competencies are based on the ability to communicate verbally in the classroom.

Teacher communication skills, as defined by Flanders (1972), refer to speaking and listening elements of classroom interaction. The verbal communication events between a teacher and students occur in a sequence and that sequence occupies a segment of time.

In a study of a model of speaking and listening Flanders (1972) reported fifteen teacher communication skills necessary to the act of teaching. The communication skills were classified as: 1) skills used immediately following pupil talk, 2) skills used immediately preceding pupil talk, and 3) other skills which may be used in either of the two classifications. The classification system developed by Flanders includes:

- **Ability to inventory pupil ideas as he listens and selects certain of these ideas for further development.**
- **Ability to reiterate, paraphrase, or expand ideas suggested by pupils.**
Ability to acknowledge pupil ideas not selected for further development and thereby sustain pupil participation.

Ability to show how ideas previously expressed by pupils are related to his own ideas.

Ability to react constructively to the surprise of unexpected pupil statements.

Ability to give criticism and corrective feedback in a constructive manner.

Ability to introduce his own ideas in ways that do not inhibit further pupil participation.

Ability to react to ideas in a way that fosters an objective analysis of ideas.

Ability to ask questions which solicit comparison of pupil ideas, call for further development, extend explanation, or otherwise make use of pupil ideas.

Ability to ask open or narrow questions about pupil ideas.

Ability to ask narrow and open questions based on his own ideas.

Ability to give directions that can be clearly understood.

Ability to ask questions which stimulate a pupil to expand beyond the expected answer.

Ability to express and explain his ideas clearly.

Ability to guide conversations according to models of inductive and deductive thinking (1972, pp. 12-16).

Using a similar technique of recording classroom interaction and analyzing the types of communication taking place, Bellack, Hyman, Smith, and Kelibard (1965) developed a more global classification system than suggested
by Flanders (1972). The four classifications of teacher communication skills suggested by Bellack et al. include:

Structuring: Structuring moves serve the pedagogical function of setting the context for subsequent behavior by launching or halting-excluding interaction between pupils and teachers and by indicating the nature of the interaction.

Soliciting: Moves which are designed to elicit a verbal response, encourage persons addressed to attend to something, or elicit a physical response.

Responding: Those moves bear a reciprocal relationship to soliciting moves and occur only in relation to them. Their pedagogical function is to fulfill the expectation of soliciting moves.

Reacting: Moves which serve to modify by clarifying, synthesizing, or expanding and/or to rate what has been said previously (1965, p. 4).

In a study at Utah State University, Borg and Stowitschek (1975) observed teachers in the classroom to determine major teaching behaviors reflecting teacher language. After analyzing the selected teaching incidents, Borg and Stowitschek (1975) determined six concepts and principles basic to teacher language. This simplified classification embodies the abilities suggested by Flanders (1972) and Bellack et al. (1965). Borg and Stowitschek summarized the teacher language used in classrooms as follows:

Clarity: Teacher use of precise language tends to make material more understandable and increases student achievement.
Emphasis: Teacher language designed to draw students' attention to important content tends to increase student achievement.

Encouragement: Teacher language designed to reward desirable student responses tend to increase student achievement and bring about better classroom interaction.

Extension: Teacher language that elicits active student participation and seeks to improve student responses tends to increase student achievement and bring about better classroom interaction.

Feedback: Teacher language designed to solicit student feedback facilitates teacher adjustment of the learning situation to meet student needs and thus increase student achievement.

Organization: Teacher language designed to help the student organize his learning and place it in context tends to increase student achievement (1975, p. 21).

In studies of the speech characteristics of superior and inferior high school teachers, Becker (1949) and Robinson and Becker (1970) identified ten speech qualities which correlated with effectiveness in teaching as rated by students in the classroom. Those ten speech abilities, in the order of degree of correlation, include:

1. The ability to explain concepts.
2. The ability to be direct and communicative.
3. The ability to display poise.
4. The ability to use an expressive voice.
5. The ability to display intelligence and wisdom.
6. The ability to use appropriate physical behavior.
7. The ability to be easily heard and understood.
8. The ability to be a likable person.
9. The ability to project a pleasant voice.
10. The ability to use language well (Robinson and Becker, 1970, p. 21).
Of the ten speech qualities for high school teachers, six are directly related to teacher verbal communication. The ability to explain concepts includes verbal behaviors of making concepts clear, presenting ideas in an orderly sequence, and avoiding the inclusion of irrelevant material in messages being transmitted.

The ability to be direct and communicative refers to those behavior patterns which display abilities to adapt the message to the listener, speak with firmness and decisiveness, project enthusiasm, and use terms that are meaningful to the listener.

The third quality which is associated with teacher verbal communication is the ability to use an expressive voice. Robinson and Becker (1970) defined this ability as speech patterns which emphasize or highlight key ideas as well as reflect a variety of voice qualities, pitch, intensity and tempo. The use of a suitable rate of speaking is another observable behavior that describes the ability to use an expressive voice.

Ability to be easily heard and understood refers to those overt behavior patterns relating to voice projection to the listener. If the listener is not receiving the message, then the listener is unable to react to the stimulus in the message. Specifically, the descriptive criteria reflecting ability to be easily heard and understood include speech patterns that are clear and distinct, appropriate in
loudness, and the loudness of the voice alters to suit the occasion.

Ability to project a pleasant voice was another speech quality recognized as important for effective teaching by Robinson and Becker (1970). A pleasant voice was defined as one that is vibrant and colorful for the listener, pitch level is not annoying to the receiver, and the voice has a soft and friendly quality.

The sixth speech quality which is directly related to teacher verbal communication is the ability to use language. This ability was explained as those verbal behaviors which require use of language that is clear and interesting to the receiver, the fluency and ease of word pronunciation, and the use of acceptable grammar in terms of learners receiving the message as well as acceptable in terms of standardized English.

In conclusion, Robinson and Becker (1970) reported that the ten abilities are of equal and distinct importance in the teacher-student interaction. Therefore, the behavioral indicators may be used as criterion standards to assess performances of teacher candidates by placing equal weight on each of the abilities.

The abilities of teacher verbal communication described by Robinson and Becker (1970) seem to encompass the concepts, which are expressed in observable behavioral terms, of all the other systems suggested by Flanders (1972), Bellack
et al. (1965), and Borg and Stowitschek (1975). When re-
viewing the classification system of Robinson and Becker
(1970) and the criteria suggested in the American Home
Economics Association competency guidelines (1974), the
speech ability system seems most comparable.

**Purpose and Use of a Simulation Strategy in Teacher Education**

The original focus for simulation came from profes-
sionals interested in practical application of knowledge and
skills in controlled and safe settings. According to Adams
(1962) and Guetzkow (1962), those in business and industry
have been training personnel in varying processes and pro-
cedures within simulated settings when the reality setting
was either too difficult or too costly to provide.

The use of simulation in teacher education has de-
veloped due to the need for providing structured situations
where students may demonstrate the teaching behaviors and
skills necessary to enter the teaching profession. Those in
the American Association for Teacher Education recommended:

> Like the study of other empirical theory, the
> study of teaching and learning theory requires
> laboratory experiences through which the stu-
> dent may conceptualize principles and interpret
> their applications to practical problems (1970,
> p. 5).

> With the advance of technology which has produced hard-
> ware capable of recording and replaying practice sessions,
> the possibility of expanding teacher education programs to
include realistic settings in pre-service education programs is now available.

After studying the relative merits of classroom simulation observations with live laboratory observations by students, Beals (1970) suggested that laboratory experiences which employ simulation techniques appear to be as effective in preparing students for student teaching as are laboratory experiences which provide for participation in an actual classroom. Students in his study tended to learn to use certain principles of classroom management and communication in meeting specific classroom situations through participation in simulated classroom experiences. After a second skills assessment, at the close of the student teaching period, the gain in skills was greater for students in the simulated setting than for those students who participated in actual classroom observations. By using simulation, the students were able to focus their observations and relate those observations to principles of teaching-learning immediately. The opportunity to replay the situation being observed helped students to analyze and synthesize what they had observed.

Studies in microteaching, conducted by MacDonald and Allen (1967), were among the first simulation strategies to deal with teacher performance rather than student observation. In these experiments the purpose was to probe the effects of reinforcement and modeling variables on learning
selected behaviors called "technical skills of teaching". Unlike other experiments with teaching behavior studied in regular classrooms, McDonald and Allen (1967) found that trainees improved on the criterion behaviors across teaching sessions in all treatments. "The single most effective variable was a form of self-viewing" stated McDonald and Allen (1967, p. 150). Thus, they concluded that the use of feedback procedures, when controlled in a simulated setting, was an effective way of modifying teaching behavior.

Kersh (1963, 1965), in studies sponsored by the Oregon State System of Higher Education, experimented with simulation as a method of developing teaching skills and ability to apply theoretical principles to the solution of specific teaching problems. Primary focus of the studies was to develop principles and skills required in the production of classroom simulation materials and to determine the need for realism in the simulation procedures.

Participants in Kersh's (1963, 1965) Classroom Simulator assumed the role of a student teacher working with "Mr. Land", the supervising teacher. Sixty problem sequences presented on soundtrack film and slides were viewed by students. For each problem sequence the student was requested to respond, with an evaluator observing that response and making judgments as to the adequacy of the responses. After each response by the student, a filmed or slide series was presented to show the consequence of the teaching behavior...
being displayed. Each problem sequence had four alternative feedback sequences designed to provide decision-making consequences of that student's actions.

Kersh (1963, 1965) reported that simulator experiences did enhance learning, and that the realism of the simulation material did not necessarily have to be a replica of reality. He stated that students were able to apply principles most readily when the amount of information presented was controlled; such as, the size and screen medium did influence the learning rates of those participants.

Vlcek (1965) conducted a study, utilizing Kersh's (1963) Classroom Simulator, to test the effectiveness of classroom simulation in providing students with experiences in identifying and responding to classroom problems, to assess the transfer value of the simulation experience, and to explore the feasibility of the experiences in simulated settings to instill teaching confidence in participants' ability to teach, and their attitudes toward the simulation experience. Vlcek concluded:

Awareness of classroom problems is not developed through classroom simulator experience.

Effective responses to classroom problems can be developed through classroom simulator experience prior to the teacher-trainee's student teaching assignment.

Principles which can be used in solving classroom problems can be developed through classroom simulator experience prior to the teacher-trainee's student teaching assignment.
Experiences gained in responding to problems within the classroom simulator do not transfer to the teacher-trainee's student teaching experience.

Principles developed for application in solving classroom problems do transfer to the teacher-trainee's student teaching assignment.

Teacher-trainee confidence in ability to teach is increased through classroom simulator experience (1965, pp. 133-134).

Cruickshank, Broadbent, and Bubb (1967) designed a Teaching Problems Laboratory using the Kersh model, except that the response was openended rather than having a model of consequential behavior. Analysis of student responses was conducted by peer group observers and discussions among the student and observers substituted for a filmed sequence. No attempt was made to structure behavior of the respondents since no criteria or models were presented. The problem-solving and analysis activities of the group were based on knowledge and experience gained prior to entering the simulation experience, or sought by students after confronting the teaching problem.

In determining the effectiveness of simulation in teacher preparation programs, Cruickshank et al. found that "simulation training was successful as a teaching device which involves and motivates students, and is partially successful in changing the student teacher's behavior" (1967, p. 54).
Ponder and Heath (1972) conducted a study to further evaluate the Teaching Problems Laboratory materials using a changed role for the instructor and an extended period of simulation training. Their reported results support the use of simulation as a strategy to develop attitudes and teaching behavior of prospective elementary teachers. However, the changed role of the instructor and extended simulation training did not produce significant differences in the effectiveness of simulation materials.

Bogniard (1968) investigated the feasibility of using simulation techniques for introducing home economics education students to student teaching. Patterning the simulations after the Teaching Problems Laboratory, Bogniard (1968) conducted a two-week workshop where students used video tape recordings, role playing, case studies, and written episodes to develop abilities in detecting, diagnosing, and resolving such teaching problems as confusion, inattention, distraction, and fatigue on the part of the learner.

Results of Bogniard's (1968) study revealed that simulation experiences aided students in developing ability to enact the desired response and to assess the problem. She also reported that growth in teaching confidence was significant for students experiencing simulation prior to student teaching. The evidence relative to the acceptability of simulation indicate that it is a highly efficient and appropriate method to use in pre-service preparation of home
Related studies by Law (1972) supported Bogniard's (1968) findings that teaching confidence gain is greater for students who experience simulation prior to student teaching than those who do not. Law (1972) also reported that students indicated favorable attitudes toward the simulation experiences. Greater gains in teaching confidence were achieved by students who experienced video tape recording simulations and in-basket simulations than did those students experiencing discussion-type strategies.

In summary, simulation strategies have been used as an alternative learning method which does enhance teaching performance and teaching confidence. Although the simulation experiences may not be more advantageous in teaching cognitive knowledge, simulation does have promise for developing teaching behaviors. Since teaching behaviors are the foundation of competency-based teacher education, it would appear that simulation strategies are feasible alternatives as strategies to include in a pre-service home economics teacher education program.
CHAPTER III

METHOD

The description of the research design, instrumentation, procedures, and data analysis are presented in four sections. Described in section one are the quasi-experimental design, the experimentally accessible population, and controls used to minimize internal validity threats. In section two the data collecting instruments are described. Procedures used during the three phases in this study are described in section three. In section four is presented the description of the statistical method used for data analysis.

Research Design

The quasi-experimental design offered structure for this exploratory study through which the research hypotheses were probed. A Non-Equivalent Control Group Design, used in determining the effectiveness of a simulation strategy for developing student teacher verbal communication abilities, was based on Quasi-Experimental Design Ten as defined by Campbell and Stanley (1963).
Campbell and Stanley describe the graphic components as "X represents the exposure of groups to an experimental variable or event, the effects of which are to be measured and O refers to some process of observation or measurement...the groups separated by a dashed line represent comparison groups not equated by random assignment" (1963, p. 6).

In this study, X represents the exposure of a group of students to a simulation strategy using video tape recordings, role playing, and discussion, and the O refers to observational measurements of teaching performance of teacher verbal communication competencies and teaching confidence.

The manipulative variate in this study was instructional procedures involving two levels experienced by intact laboratory groups. Specifically, the strategies were:

1. A simulation strategy using video tape recordings of teacher verbal communication behaviors, small group discussions of observations, and role playing of the behaviors.

2. A case study strategy using an illustrated lecture, analysis of teaching situations, and small group discussions of possible behaviors required in the situations.

The non-manipulative variates investigated were:

1. Cumulative grade point average.

2. Home economics courses grade point average.

3. Number of home economics courses completed.
4. Number of previous teaching experiences.
5. Student perceived quality of previous teaching experiences.
6. Number of previous leadership experiences.
7. Student perceived quality of previous leadership experiences.

The criterion variables investigated in the study were:
1. Teacher verbal communication performance.
2. Teaching confidence.

Population

The accessible population in this study was 20 students with home economics education majors at Montana State University who enrolled in a course, Methods of Teaching Economics, during the Winter Quarter 1976. The School of Home Economics at Montana State University offered the methods of teaching course during one quarter of the academic year only. This course was available to students entering their first quarter junior year of the home economics education option as well as to those students beyond that point.

The course was scheduled for two one-hour lecture class sessions on Monday and Wednesday and two laboratory sessions, for two consecutive hours, on Tuesday and Thursday. Of the 20 students enrolled in the course, 19 were randomly assigned to the laboratory sessions using a table of random numbers. Due to a scheduling problem, one student was not randomly assigned.
Therefore, the experimentally accessible population for this study was the intact laboratory groups composed of home economics education students enrolled in a Methods of Teaching Home Economics course during Winter Quarter 1976. The experimental treatment was randomly assigned to one of the laboratory groups.

Controls for Threats to Validity

Since the opportunity to randomly assign all students to the two laboratory groups was not available to the investigator, the Non-Equivalent Control Group Design offered optimum conditions for the experimentally accessible population. This design was appropriate in that the treatment could be randomly assigned to the groups. The opportunity to pretest teacher verbal communication performance and teaching confidence was possible within the parameters of the course structure.

History was controlled since general historical events that might produce a significant difference in scores were experienced by both the simulation and case study treatment groups. Intrasession history was controlled to the extent that the investigator was the instructor for the two lecture classes as well as both of the laboratory sessions. No unique events occurred during the instructional phase of the study.
According to Campbell and Stanley (1963), regression provides a major internal validity problem in the Quasi-Experimental Design Ten. This threat was minimized since the assignment to laboratory groups was not based on extreme pretest scores or correlated measures; but rather on student assignment by random numbers and time schedules during the academic quarter in question. No attempt to match students in the simulation and case study groups was made.

Threats of interaction of selection and maturation and others, which Campbell and Stanley (1963) cite as major problems was minimized since the students did not select the laboratory sessions according to the treatment. Demographic data were collected and analyzed to determine differences between the two intact laboratory groups.

Instrumentation

Four major categories of concern were measured: 1) the probable effect of a simulation strategy on teacher verbal communication performance; 2) the probable effect of a simulation strategy on teaching confidence; 3) the possible relationship between teacher verbal communication performance and cumulative grade point average, home economics courses grade point average, number of home economics courses completed, number and student perceived quality of previous teaching experiences, and the number and student perceived quality of previous leadership experiences; and 4) the
possible relationship between teaching confidence and cumulative grade point average, home economics courses grade point average, number of home economics courses completed, number and student perceived quality of previous teaching experiences, and the number and student perceived quality of previous leadership experiences. Five instruments were developed and used in the experiment for collection of data.

Teaching Confidence Rating Scale

For the purpose of measuring teaching confidence, a Teaching Confidence Rating Scale adapted from those used by Law (1972), Smith (1969), Bogniard (1968), and Vlcek (1965) was developed and administered to students in the simulation and case study groups prior to and after the treatment (Appendix A).

Law (1972) adapted the Confidence Scale from those used by Smith (1969), Bogniard (1968), and Vlcek (1965) as a pre-test and posttest measure to determine teaching confidence prior to treatment, immediately after treatment, and after completion of the student teaching experience.

The Teaching Confidence Rating Scale included opportunities for the student to record an assessment of perceived confidence in teacher verbal communication abilities. The scale format, patterned after the instrument used by Law (1972), provided three possible ratings for each item: numerical ratings of 1, 3, or 5. A descriptive counterpart of
each rating was, in the same order, "not at all confident", "somewhat confident", and "quite confident".

Statement items were generated from a search of literature on teacher verbal communication traits. In the Protocol Materials Project conducted by Borg and Stowitschek (1975) at Utah State University, behavioral indicators of teacher verbal communication strategies were identified and defined. Those behavioral indicators of teacher application of language concepts were used as a basis in developing the items to include in the teaching confidence scale. The statements were reviewed by a group of seven home economics supervising teachers. Each teacher ranked the items as being important or unimportant in classroom teacher verbal communications. From the collective rankings, a final list of 20 statement items was included in the Teaching Confidence Rating Scale. The scale was then reviewed by five students, members of the School of Home Economics Student Advisory Board, to determine the understandability of terminology and directions, and the interpretation of the statement items.

After refinement of the item statements and rating scale format, the instrument was administered to ten junior level students with majors in home economics education who were enrolled in a subject area home economics class during Autumn Quarter 1975. A test-retest procedure was followed to determine reliability of the instrument. Approximately a four week interval was allowed between the two
administrations to minimize the effect of memory in creating an artifically high reliability coefficient.

Pearson product-moment correlation coefficient was calculated with the result that the reliability coefficient was equal to .84. To be considered significant at the .05 level of significance, an r of .6021 with nine degrees of freedom is necessary. Therefore, the instrument items and format were appropriate for soliciting student perceptions of their self confidence in teacher verbal communication competencies.

**Leadership Experience Rating Scale**

A Leadership Experience Rating Scale was developed to obtain information concerning previous leadership experiences in varying social and educational activities (Appendix B). The combination check sheet and rating scale was developed and administered to all participants in the simulation and case study groups prior to the treatment. Opportunity for students to indicate their roles in the activities was in the form of checking a designation of that role in the categories of "officer", "active member", "inactive member", or "other". To assess the quality of that experience in relation to developing teaching skills, students were to indicate their perceived estimate by rating each activity by numerical ratings of 6, 5, 4, 3, 2, or 1. A descriptive counterpart for each rating, in the same order, was "exceptional in value", "superior in value", "strong in
value", "adequate in value", "limited in value", or "of little value".

The list of activities was generated by student teachers during student teaching seminars on October 6, 9, and 15, 1975. Comparison of the activity lists generated by 11 student teachers yielded 10 category descriptions of activities in which home economics education students most often participate prior to and including the college junior year.

Review of the instrument format and item categories was provided by a group of five students serving on the Student Advisory Board of the School of Home Economics. Their reactions to the terminology and clarity of directions, and definitions of the activity items were guides in establishing instrument validity.

The instrument was administered to a group of 10 junior level students enrolled in a home economics subject area class during Autumn Quarter 1975. Using the test-retest method of establishing reliability, two administrations of the instrument were conducted on November 4 and December 2, 1975. Pearson product-moment correlation calculations yielded a reliability coefficient of .68. To be considered significant at the .05 level of confidence with nine degrees of freedom, an r of .6021 is necessary. Therefore, the instrument met the statistical criterion for reliability.
Teaching Experience Rating Scale

For the purpose of measuring previous teaching experiences, a Teaching Experience Rating Scale was developed and administered to both the simulation and case study groups prior to treatment (Appendix C).

The combination check sheet and rating scale included opportunities for students to record their previous teaching experiences in two categories, "assumed major responsibility" and "assisted the teacher". In the second column, students indicated their value perceptions of the experiences using a numerical scale of 6, 5, 4, 3, 2, or 1. The descriptive counterpart for each rating was, in the same order, "exceptional in value", "superior in value", "strong in value", "adequate in value", "limited in value", or "of little value".

Previous teaching experience activity items were generated by home economics student teachers during student teaching seminars on October 6, 9, and 15, 1975. Comparison of the lists produced by seven student teachers yielded eight descriptors of teaching experiences in which students majoring in home economics education most often participate prior to enrollment in the Methods of Teaching Home Economics course.

To determine the validity of the combination check sheet and rating scale, the instrument was critiqued by five students serving on the School of Home Economics Student
Advisory Board. Their comments were used in refining the instrument directions, definition of rating categories, and format.

Reliability of the instrument was established by the test-retest method during two administrations conducted on November 4 and December 2, 1975. Pearson product-moment correlation calculations resulted in a reliability coefficient of .72. Since the significance at the .05 level of significance with nine degrees of freedom requires an r of .6021, the instrument reliability was considered sufficient for the purpose in this study.

**Teacher Communication Competencies Rating Scale**

For the data needed to determine teacher verbal communication performance, the instrument used was the Teacher Communication Competencies Rating Scale developed for this study by the investigator (Appendix D). Competencies to be rated were limited to relatively overt qualities of observable behavior as reported by Robinson and Becker (1970).

The rating instrument items contained two major components: 1) three sets of descriptive phrases of observable behavior to denote the extreme polars and mid-points of the scale, and 2) the response options consisting of numerical categories with six being the maximum degree and one being the minimum degree designations for teacher verbal communication performance. Judges using the instrument also had
an opportunity to indicate if the student "did not accomplish" the minimum degree of behaviors being rated or if there was "no opportunity to observe" the behaviors. The numerical rating of zero was used for those items rated as "did not accomplish". Only the numerical scale assignments were used in calculating the performance scores. Since each competency category was considered as being of equal importance, the total performance score was an average calculated from the six teacher verbal communication abilities. This scale met the two criteria reported by Thorndike and Hagen (1969) of selecting qualities which are overt and which can only be measured by subjective judgments from someone other than the person being rated.

Teacher verbal communication abilities were derived from ten qualities of speech for effective teaching reported by Becker (1949) and Robinson and Becker (1970). The six qualities relating specifically to teacher verbal communication included: 1) the ability to explain concepts, 2) the ability to be direct and communicative, 3) the ability to use an expressive voice, 4) the ability to be easily heard and understood, 5) the ability to project a pleasant voice, and 6) the ability to use language.

Validation of the instrument was established in a review of the ability categories and the descriptive paragraphs conducted by a panel of authorities consisting of teacher educators and state supervisors of home economics
from Montana. The panel of authorities evaluated each of the six ability categories in terms of relevance to this particular study, clarity of descriptive phrases, unidimensionality of the abilities, and clarity of directions for rating the performance. Revisions and refinements in wording and format were based on suggestions submitted by the panel of authorities.

Reliability of the instrument was determined at the training sessions of the judges. Results are reported in the Training Session for Judges section of this report.

**Panel of Judges Demographic Information Form**

A Panel of Judges Demographic Information form was developed to obtain information on the teaching and supervisory experiences of judges to establish their reliability as evaluators in this setting (Appendix E). The information form was administered at the first training session for the judges. Opportunity for judges to indicate their experience background was in the form of listing the number of years of experience in three areas; secondary school classroom teaching, secondary school supervision, and teacher education. Judges were also asked to indicate their contact with the video tape recording medium: 1) no experiences with the medium, 2) minimum experiences with the medium, 3) adequate experiences with the medium, 4) extensive experiences with the medium.
Statements in the information form were reviewed by several School of Home Economics faculty members to determine appropriateness of the statements in relation to the selection criteria for judges. Faculty comments on terminology, clarity of directions, statement phrasing, and format were used as guidelines in refining the instrument. No attempt was made to establish reliability since the investigator was present at the training session for judges to answer questions regarding interpretation of the statements.

Procedure

The study was divided into three phases: 1) the developmental phase, 2) the instructional phase, and 3) the measurement phase.

Developmental Phase

The planning period in this study was carried out from September 3, 1975 to January 7, 1976. Simulation experiences were created to provide opportunities for methods class enrollees to assume the role of a student teacher and demonstrate teacher verbal communication abilities, presented on video tape recordings, in role playing, and student review of the role playing incidents. A second set of instructional modules using printed case studies, as illustrated talk, and discussion was developed for use with the comparison group.
Development of Video Tape Recording Models

Through the cooperation of administrative personnel, home economics teachers and home economics student teachers in three junior and senior high schools in Montana, video taping of the six models depicting teacher verbal communication performance, in the teaching of subject matter in home economics, was completed in November 1975. Each model video tape recording of a ten-minute micro-lesson included behaviors relating to the six teacher verbal communication abilities defined by Robinson and Becker (1970). The investigator, home economics teacher, and home economics student teacher worked cooperatively in creating the physical setting, collecting the instructional aids, and operating the Sony Porta-Pack #TCV-2110A video recorder and camera, using 1/2 inch tape. Junior and senior high school youth from the three schools volunteered to serve as student actors during the video recording sessions.

Each of the six video tape model micro-lesson plans was designed by the investigator using lesson plans from previous student teachers. Rough draft lesson plans with script and directions were produced and reviewed by home economics supervising teachers and student teachers for content concepts appropriate to varying levels of home economics comprehensive courses, probability of requiring the six teacher verbal communication performances, and relevance to
lessons usually taught by home economics student teachers.

Each micro-lesson model was rehearsed by the student teacher and student actors before video taping was attempted. All participant actors were aware that retaping was possible if errors were made. Therefore, the participants were able to perform in a relaxed and natural way. Average time required to rehearse and produce each video tape model was approximately one-half hour. The investigator assumed responsibility for operating the video tape camera and recorder.

Preparation of Instructional Module Materials

Two instructional modules were prepared, one to supplement the simulation and one to supplement the case study strategy (Appendix F, G). The simulation and case study modules included an introduction to the strategy, a step-by-step procedure sequence, a brief description of the six teacher verbal communication abilities, and the six situations with accompanying lesson plans. Instructional aids, the hardware used in the lesson, were provided in the home economics education laboratory during the simulation or case study treatments.

The instructional modules were constructed to assist students in realistically determining behaviors of teacher verbal communication used by student teachers. Cruickshank, et al. (1967) in their pilot study for the Teaching
Problems Laboratory discovered that one of the major difficulties had been in selecting the critical incidents used in the simulation. These investigators solicited critical incidents from first-year teachers rather than from student teachers and therefore, the teaching incidents were not appropriate for the student teachers.

Using that recommendation as a guideline, the investigator in this study was careful to choose teaching incidents and materials which were appropriate to home economics student teachers. After reviewing notebooks of former home economics student teachers containing lesson plans and related material, the six lesson plans were selected and refined for use in this study.

Four home economics supervising teachers and four student teachers reviewed the lesson plans during October 1975. Those lesson plans were used in the video tape recorded models as well as printed for the instructional modules. Reviewers analyzed the module materials for orientation activities and descriptions of the teacher verbal communication abilities.

This review of the instructional modules revealed the need for using phrases and terminology that are appropriate to student teachers rather than experienced teachers. Lesson plans and other supplementary materials were refined accordingly. At the suggestion of the student teachers, a procedure schedule was added to aid the students in orderly
progress through the simulation and case study modules.

Pilot Testing the Simulation and Case Study Strategies

A pilot test of the video tape recordings and modules for the simulation and case study groups was conducted on December 29, and 30, 1975 to determine the feasibility of using the program in a home economics methods course. Four home economists who had recently graduated with home economics education majors agreed to act as students who would experience the modules. Two students were involved with the video tape simulation strategy and two students participated in the case study strategy. Discussion of the procedures and directions followed each instructional session. Revisions and refinements of the module materials, clarity of directions, terminology used, and time allotments needed to complete the modules were based on suggestions offered by the pilot test participants.

Approximately one half hour was needed to progress through each of the simulation modules and associated activities. The time needed for the case study strategy was approximately the same. Orientation to the modules and procedures included in the strategy required an additional half hour. Therefore, the instructional time required for the instructional phase of this study for all six modules was two two-hour laboratory sessions. The pretesting of performance and posttesting of performance required an
additional two sessions for a total of four laboratory sessions in each group devoted to the study.

**Instructional Phase**

The major part of the instructional phase of this study occurred during Winter Quarter 1976. Administration of the Leadership Experience and Teaching Experience Rating Scales was conducted at the first class session on January 7, 1976 (Appendix B, C). Students were also asked to sign permission forms authorizing the review of their academic records to collect information related to cumulative grade point average, home economics courses grade point average, and number of home economics courses completed. At that first class session students were informed of certain course requirements and facts related to the course structure; namely, that attendance was required at all laboratory sessions and the laboratory groups would experience alternative activities which would require students to attend only the laboratory sessions to which they were assigned. To minimize possible halo effects, students were not informed of the study being conducted.

The Teaching Confidence Scale was administered on February 9, 1976 and again on March 8, 1976 during the class sessions just prior to and immediately after the laboratory sessions devoted to the treatments (Appendix A). All 20 students completed the rating instrument at the same
point in time.

A pretest of teacher verbal communication performance was conducted during the February 10 and 12, 1976 laboratory sessions. Students in both the simulation and case study groups were required to plan and present a ten-minute micro-lesson to a small group of volunteer high school youth, which was recorded on video tape. The investigator operated the video tape recorder and camera located in the home economics education laboratory. Only the student being taped, six volunteer high school youths, and the investigator were present during the taping. Students were required to provide their own visual and instructional materials for the lesson plan which they developed as an assignment in previous laboratory sessions. Students were not permitted to view the recorded micro-lessons until after the instructional phase of the study was completed.

The simulation strategy, using six video taped performance models, was presented to the simulation group on February 17 and 24, 1976. Three model video tapes and instructional modules were presented at each session. After receiving orientation to the strategy, students viewed the video tape, analyzed their observations in small groups, and then participated in role playing the student teacher to demonstrate those specified teacher verbal communication abilities. Appropriate instructional hardware for each of the modules was used in the role playing segment. Thus,
each simulation module included the activities of: 1) viewing the model video tape, 2) in small groups, analyzing the model in relation to teacher communication abilities, and 3) role playing to demonstrate those abilities with peers offering suggestions to modify and refine the performance behaviors.

The case study strategy, using an illustrated talk by the investigator of the six teacher verbal communication abilities, was presented to the case study group on February 19 and 26, 1976. After receiving orientation to the strategy, students listened to an illustrated lecture by the investigator on the teacher verbal communication abilities, reviewed the case studies and accompanying lesson plans, and participated in small group discussions on the topic in question. Three of the case study module experiences were completed during each of the two laboratory sessions.

To summarize, the case study strategy included activities of: 1) listening to an illustrated lecture on the six teacher verbal communication abilities, 2) review of a case study depicting a teaching episode in a home economics subject area, 3) analysis of the accompanying lesson plan, and 4) a small group discussion of possible teaching behaviors to use in the teaching situation.

Posttesting teacher verbal communication performance was conducted during the March 2, and 4, 1976 laboratory sessions. Students in both the simulation and case study
groups planned and presented a ten-minute micro-lesson to another group of six volunteer high school age youths, which was recorded on video tape. The setting and procedure of scheduling were the same as those used for the pretest performances.

**Measurement Phase**

The measurement phase began after completion of the Methods of Teaching Home Economics course on March 22, 1976. After selection, a panel of judges viewed all pretest and posttest video tape micro-lessons and rated the teacher verbal communication performances. Using the Teacher Communication Competencies Rating Scale, each judge individually rated each student performance (Appendix D). Viewing the tape recordings, however, was at the same time. Presentation of the pre- and posttest video tape recordings was in a random order and the judges were not aware of whether the taped presentation was a pre- or posttest nor to which group the student was assigned.

**Panel of Judges**

The procedure used to determine the number and composition of the panel of judges involved a review of related literature and contact with teacher education personnel at Montana State University.

According to Thorndike and Hagen, "The between rater reliability of conventional rating procedures is low"
When it is possible to pool independent ratings of judges that possess expert knowledge of the qualities being rated, the reliability of the appraisal can be increased substantially. "Error components will be independent and tend to cancel out when the number of raters increase" stated Thorndike and Hagen (1969, p. 447). They further reported that "pooling ratings functions in the same way as lengthening a test, if the reliability of one rater is represented by a correlation of .55, the estimates for the reliability of pooled ratings of three raters is .79" (1969, p. 433).

After personal interviews with seven professional educators, Smith (1969) reported that for most traits of overt qualities, not less than three judges should be used to ensure adequate reliability standards. In order to maintain an acceptable level of inter rater reliability, a panel of three judges meeting specified criteria was selected.

Criteria for Selection of the Panel Members

"For most purposes, the ideal rater is the person who has had a great deal of opportunity to observe the person being rated in appropriate situations" stated Thorndike and Hagen (1969, p. 444). They emphasized the importance of raters being familiar in observing the qualities to be rated as well as trained in the procedures of judging and using the rating instrument. In summary, Thorndike and Hagen
(1969) indicated that training sessions for the judges will not eliminate the shortcomings of ratings, but training should reduce the most common distortions attributed to the use of judges in rating performances by a third person.

In keeping with the purpose in this study, the following criteria were used as a basis for selecting the panel of judges.

A. Experience in secondary school classroom teaching - minimum of three years.

B. Experience in secondary school supervision - can be in the form of having been a cooperating teacher or a general supervisor in the secondary schools.

C. Experience in teacher education - completion of courses or experiences in the field of study.

D. Experience with the video tape recording medium - some experience with this educational medium in teacher education, if possible.

Characteristics of the three judges who consented to participate varied in terms of teaching experience, supervisory experience, and teacher education experience.

(Table 1).
TABLE 1
CHARACTERISTICS OF THE PANEL OF JUDGES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3 years</td>
<td>5 years</td>
<td>6 years</td>
<td>Extensive</td>
</tr>
<tr>
<td>B</td>
<td>4 years</td>
<td>8 years</td>
<td>5 years</td>
<td>Extensive</td>
</tr>
<tr>
<td>C</td>
<td>7 years</td>
<td>2 years</td>
<td>13 years</td>
<td>Extensive</td>
</tr>
</tbody>
</table>

Av. 3/14 years 3/15 years 3/24 years + + +
4.67 yrs. 5 yrs. 8 yrs.

Training Sessions for the Panel of Judges

The three judges involved in this study assisted with the establishment of reliability of the rating instrument and video tape models and therefore attended a series of four three-hour sessions prior to the official training sessions. Preliminary sessions were conducted on November 18, December 2, 1975 and on January 16 and February 6, 1976. The official training sessions were conducted on March 10 and 17, 1976. The first training session included collecting information related to education and experience backgrounds of each judge, using the Panel of Judges Demographic Information Form (Appendix E). This was followed by a
review of the topics:

1. The purpose in the study.

2. The teacher verbal communication abilities to be observed and rated.

3. The use of video tape recordings to present the student performances to be rated.

4. The purpose and responsibilities of the panel members.

Informal discussion followed the presentation of each topic.

The panel members reviewed the rating forms and viewed one of the video tape models to become reacquainted with the format of the micro-lesson. The same tape was replayed and the panel of judges evaluated the presentation using the Teacher Communication Competencies Rating Scale (Appendix D).

Specifically, the procedures used during the training sessions for the judges, adapted from those used by Smith (1968), included the following steps:

Panel of Judges Training Procedure

Step 1: Review the rating form and discuss each of the six abilities and the descriptive paragraphs relating to the numerical graph.

Step 2: View a model video tape recording.

Step 3: Panel of judges rate the performance using the Teacher Communication Competencies Rating Scale.

Step 4: Panel of judges compare and discuss the individual ratings with the investigator to clarify ambiguous points.

Step 5: View, in random order, the six model video tape recordings and six placebo tape recordings of micro-lessons which were ten minutes in length.
The procedure was followed at the second training session. Results of the twelve ratings were used to determine inter rater reliability. After pooling the independent ratings, the statistical test of analysis of variance as suggested by Winer (1962) was completed.

TABLE 2

INTER RATER RELIABILITY OF PANEL OF JUDGES USING THE TEACHER COMMUNICATION COMPETENCIES RATING SCALE

<table>
<thead>
<tr>
<th>Video Tape Recordings</th>
<th>First Training Session</th>
<th>Second Training Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Video Tape Recordings</td>
<td>.78</td>
<td>.86</td>
</tr>
<tr>
<td>Placebo Video Tape Recordings</td>
<td>.77</td>
<td>.86</td>
</tr>
</tbody>
</table>

Two special sessions were conducted on March 12 and 19, 1976 using the same procedures except with audio tape recordings of performances instead of video tape recordings. This was done for the purpose of determining the most appropriate medium to present the pre- and posttest performance micro-lessons. The statistical test of analysis of variance was applied. Calculations resulted in a reliability coefficient of .22 for the placebo audio tapes and a reliability
coefficient of .53 for the model audio tape recordings. To be significant at the .05 level, with five degrees of freedom, the reliability coefficient must be .7545. Therefore, the video medium was chosen as the most appropriate recording medium for rating pre- and posttest performances.

All three panel members viewed the pre- and posttest performance tape recordings at the same time during a series of four four-hour sessions on March 22--25, 1976. Video tape recordings were viewed in a random order and the judges were not informed as to which tape recordings were pre- and posttests. Nor were the judges aware of the student assignments to groups. Each checked the rating scale independently.

Viewing the tape recordings was limited to two-hour segments with a rest period to divide the sessions in order to minimize the element of fatigue. Coffee was available throughout the sessions and the room temperature and setting were kept as pleasant as possible. The schedule for viewing the tape recordings was at the convenience of the judges, which was between Winter and Spring Quarter 1976 at Montana State University.

Upon completion of viewing and rating all 40 video tape recordings, the inter rater reliability of the panel members was determined. The statistical test applied was analysis of variance suggested by Winer (1962). (Table 3).
TABLE 3
INTER RATER RELIABILITY OF PANEL OF JUDGES ON TEACHER COMMUNICATION COMPETENCIES RATING SCALE

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Pretests</th>
<th>Posttests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simulation Group</td>
<td>.96</td>
<td>.93</td>
</tr>
<tr>
<td>Case Study Group</td>
<td>.96</td>
<td>.93</td>
</tr>
</tbody>
</table>

In summary, the activities and corresponding time schedule followed in this study included:

Developmental Phase

September 1975:
Review of former student teacher notebooks and lesson plans and development of micro-lesson plans and modules for the six video tape simulations.

Development of the Panel of Judges Demographic Information Form and review of statement items by faculty members of the School of Home Economics.

Review of literature relating to teacher verbal communication abilities and development of statement items to include in the Teaching Confidence Rating Scale.

October 1975:
Development of lists of teaching and leadership experiences by student teachers at a series of seminars.

Review of statement items on teaching confidence by a group of supervising teachers and development of the format for the Teaching Confidence Rating Scale.
Contact made with school personnel for arrangements to video tape the model micro-lessons in the classrooms.

Review of the instruments: Teaching Experience Rating Scale, Leadership Experience Rating Scale, and Teaching Confidence Rating Scale by members of the School of Home Economics Student Advisory Board.

Review of micro-lesson plans by supervising teachers and student teachers for validity purposes.

November 1975:

Administration of first test of the rating instruments, designed to obtain background information, to students in a subject area home economics class.

Development of first draft of the Teacher Verbal Communication Rating Scale and submission to panel of authorities for review.

Filming of model tape recordings of teacher verbal communication in three public school classrooms.

Refinement of instrument for rating teacher verbal communication performances and pilot testing with judges.

December 1975:

Administration of the retest for reliability of rating instruments designed to obtain student education and experience background information to the same group.

Conduct of second session for judges to establish reliability of the rating instrument and video tape models. Refinement of instrument in relation to suggestions generated by judges.

Conduct of the pilot test of instructional modules and related materials with four volunteer home economists.
Instructional Phase

January 1976:

Administration of the teaching experience and leadership experience rating scales to the data generating groups at the first class session. Secure permission from participants to review academic records.

Conduct of third session for judges to establish reliability of rating instrument and provide judges with observational training.

February 1976:

Administration of the Teaching Confidence Rating Scale, pretest, during a lecture session of the methods class.

Conduct of pretesting of teacher verbal communication abilities during laboratory sessions.

Presentation of two instructional strategies to the laboratory groups in two session segments.

March 1976:

Conduct of posttesting teacher verbal communication abilities during laboratory sessions.

Administration of posttest Teaching Confidence Rating Scale during a class session immediately after treatment.

Measurement Phase

Conduct of a series of training sessions for judges and establishment of the inter rater reliability of judges on the instrument.

Conduct of viewing and rating sessions for panel of judges to rate student performance tapes.

Analysis of Data

The Statistical Package For The Social Sciences

SPSS-H -- Version 6.01 was selected since this program was
specifically designed for analysis of covariance. The pro-
gram provided the sources of variation with pretest scores
as covariates, degrees of freedom, sums of squares and mean
squares from which F values were determined. The output also
included Pearson product-moment correlation matrices, with
t ratios on each correlation coefficient. Data included all
scores generated by the experimental and comparison groups.

One way analysis of covariance was completed on post-
test scores, teacher verbal communication performance and
teaching confidence, adjusted for variations in pretest
scores. In their discussion of Design 10, Campbell and
Stanley (1963) suggested that even though the design is
widely used in educational research, the tests of signifi-
cance used are often inappropriate or incomplete.

Analysis of variance of simple gain scores are
applicable but usually less desirable than
analysis of covariance. Application of analy-
sis of covariance to this Design 10 setting
involves assumptions, such as that of homogeneity
of regression, less plausible here than in De-
sign 4 settings (1963, p. 49).

To determine if significant differences existed between
students in the simulation and case study groups, Student
t's were computed on the seven factors relating to student
education and experience background information. Since no
significant differences were evident between the experi-
mental and comparison groups on the student education and
experience background factors, the pretest scores were used
as the single covariate to adjust the posttest scores on
teacher verbal communication performance and teaching confidence.

Numerical values assigned to the classifications on the four measurement instruments met the assumption of interval scales. Values assigned to the Teacher Communication Competencies Rating Scale were 6 to 1, and 0 for the "did not accomplish" category. Pre- and posttest scores were determined by pooling the ratings of three judges and calculating a comprehensive mean score.

Each classification on the Teaching Confidence Scale was assigned a numerical value of 5, 3, or 1. All values were added and the calculated mean score served as the pre- or posttest score. This scale was also based on the assumption of interval measurement. Gain scores for both criterion variables were calculated by subtracting the pretest score from the posttest scores.

Both the Leadership Experience Rating Scale and the Teaching Experience Rating Scale were designed to yield numerical scores appropriate for interval measurement. The scales included numerical values of 6 to 1 on the quality assessment and the numerical values of 1 to k on the quantitative section of the combination check sheet and rating scales.
CHAPTER IV

FINDINGS AND DISCUSSION

Findings and discussion of the results are organized into three sections in keeping with the concerns in the study. Section one includes a description of participants in relation to education and experience background factors to be examined in terms of teacher verbal communication performance and teaching confidence. In the second section findings are presented which relate to hypotheses focusing on: 1) the probable effect of instructional strategies on teacher verbal communication performance, 2) the relationship of specified background factors with teacher verbal communication performance for students experiencing a simulation strategy, and 3) the relationship of specified background factors with teacher verbal communication performance for students experiencing a case study strategy. Section three includes findings related to hypotheses focusing on: 1) the probable effect of instructional strategies on teaching confidence, 2) the relationship of specified background factors with teaching confidence for students experiencing a simulation strategy, and 3) the relationship of specified
background factors with teaching confidence for students experiencing a case study strategy.

**Student Education and Experience**

**Background Factors**

The experimentally accessible population included 20 students with home economics education majors enrolled in a methods course. Specific student background factors which were examined for possible relationships with teacher verbal communication performance and teaching confidence included:

1) cumulative grade point average, 2) home economics courses grade point average, 3) number of home economics courses completed, 4) number of previous teaching experiences, 5) student perceived quality of previous teaching experiences, 6) number of previous leadership experiences, and 7) student perceived quality of previous leadership experiences. Results of computing Student t's indicated no significant differences between students in the simulation and case study groups on specified background factors. (Table 4).

A review of student academic records was conducted to obtain information regarding cumulative grade point average, home economics courses grade point average, and the number of home economics courses completed prior to and including Autumn Quarter 1975. The cumulative grade point averages ranged from 1.88 to 3.57 for the simulation group (Appendix J). Scores for the case study group ranged from 2.58 to 3.50 (Appendix K). The case study group mean score of
TABLE 4
COMPARISON OF TWO TREATMENT GROUPS ON EDUCATION AND EXPERIENCE BACKGROUND FACTORS

<table>
<thead>
<tr>
<th>Background Factors</th>
<th>Simulation Group&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Case Study Group&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>Cumulative Grade Point Average</td>
<td>2.97</td>
<td>0.47</td>
</tr>
<tr>
<td>Home Economics Courses Grade Point Average</td>
<td>3.27</td>
<td>0.34</td>
</tr>
<tr>
<td>Number of Home Economics Courses Completed</td>
<td>18.70</td>
<td>6.11</td>
</tr>
<tr>
<td>Number of Previous Teaching Experiences</td>
<td>2.50</td>
<td>1.08</td>
</tr>
<tr>
<td>Quality of Previous Teaching Experiences</td>
<td>4.82</td>
<td>0.74</td>
</tr>
<tr>
<td>Number of Previous Leadership Experiences</td>
<td>5.30</td>
<td>1.49</td>
</tr>
</tbody>
</table>
TABLE 4 (continued)

<table>
<thead>
<tr>
<th>Background Factors</th>
<th>Simulation Group&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Case Study Group&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>Quality of Previous Leadership Experiences</td>
<td>4.35</td>
<td>.81</td>
</tr>
</tbody>
</table>

<sup>a</sup>N = 10 in each group

t .05 = 2.101 (with 18 degrees of freedom)

3.04 was .07 points higher than the simulation group mean score of 2.97 and the standard deviation was .11 points lower. (Table 4).

The case study group mean home economics courses grade point average of 3.41 was .14 points higher than the simulation group mean score of 3.27 and the standard deviation was .08 points lower. (Table 4). For the simulation group, the home economics courses grade point average ranged from 2.75 to 3.63 (Appendix J). The case study group home economics courses grade point average ranged from 2.99 to 3.77 (Appendix K).

Students within the two groups did not differ significantly in the number of home economics courses completed prior to enrollment in the methods course. The simulation
group mean of 18.70 courses completed was 2.40 courses higher than the case study group mean of 16.30 number of courses completed. The standard deviation indicated a wider variation for this simulation group than for the case study group with a difference of 2.37. (Table 4). Within the simulation group, the number of home economics courses completed ranged from 11 to 29 (Appendix J). For the case study group, the number ranged from 12 to 23 courses completed prior to enrollment in the Methods of Teaching Home Economics course (Appendix K).

Data relating to the number and quality of previous teaching experiences were obtained from the Teaching Experience Rating Scale (Appendix B). The varying types of teaching experiences included teaching roles such as 4-H junior leaders, Camp Fire Girls and Girl Scout junior leaders, swimming teachers, Sunday School teachers, teaching assistants in home economics junior and senior high school classes, and appliance demonstrators for a rural utility company. The majority of experiences for students in both groups were in the categories of junior leaders, Sunday School teachers, and home economics teaching assistants.

Students in the simulation group reported the number of previous teaching experiences which ranged from 1 to 4 (Appendix J). For the case study group, the number of previous teaching experiences ranged from 2 to 7 (Appendix K). The case study group with a mean number of 3.50 reported
experiences was one higher than the mean number of 2.50 reported by the simulation group and the standard deviation was .64 points higher. (Table 4).

Quality of previous teaching experience scores, as perceived by the students, ranged from 3.75 to 6.00 for the simulation group (Appendix J). In comparison, the scores ranged from 4.25 to 5.67 for the case study group (Appendix K). The case study group mean score of 5.08 was .26 points higher than the simulation group mean score of 4.82 and the standard deviation was .23 points lower. (Table 4).

Previous leadership experiences, defined as those activities where students assumed an active role in decision-making and directing the actions of others, were obtained from the Leadership Experience Rating Scale (Appendix C). Types of activities in which home economics education students participated prior to enrollment in the methods course included 4-H Clubs, Future Homemakers of America, Church Youth groups, Girl Scouts, Camp Fire Girls, and varying other social and professional related organizations. The majority of previous leadership experiences reported by both groups were in 4-H Clubs, Church Youth groups, and home economics related organizations.

Students in the case study group reported a range of previous leadership experiences from 2 to 8 (Appendix K). For the simulation group, the number of previous experiences ranged from 4 to 8 (Appendix J). A mean number of previous
leadership experiences of 5.30 for the simulation group was .40 points higher than the case study mean number of 4.90 and the standard deviation was .54 points lower. (Table 4).

Quality of previous leadership experience ratings, as perceived by the students, ranged from 2.88 to 5.40 for the simulation group (Appendix J). The case study group ratings ranged from 3.50 to 5.60 for the quality of previous leadership experiences (Appendix K). The case study group mean rating of 4.55 was .20 points higher than the simulation group mean rating of 4.35 and the standard deviation was .11 points lower. (Table 4).

**Teacher Verbal Communication Performance**

Results relating to the first research hypothesis reveal the probable effect of a simulation strategy on teacher verbal communication performance.

The research hypothesis investigated was:

Students who experience a simulation strategy will show a higher performance posttest score on teacher verbal communication abilities than students who experience a case study strategy.

The research hypothesis was supported since results indicated that the posttest scores for the group where a simulation strategy was used were significantly higher in terms of teacher verbal communication abilities than for the group experiencing a case study strategy (Table 6).

Data for this hypothesis were obtained from the pre- and posttest scores of students on the degree of
accomplishment scale in the instrument for measuring teacher verbal communication; the Teacher Communication Competencies Rating Scale (Appendix D). Covariance analysis was determined as the appropriate statistical test for this quasi-experimental design, with the pretest score as the single covariate, since there were no significant differences between the two groups on specified background factors.

Teacher verbal communication performance posttest scores ranged from 4.72 to 5.83 with a mean performance score of 5.31 and a standard deviation of .30 for the simulation group (Appendix H). The range for the case study group was from 1.94 to 3.44 with 2.83 as the mean score and the standard deviation of .49 (Appendix I). The simulation group mean posttest score was 2.48 points higher than the case study group and the standard deviation was .19 points lower. (Table 5).

Using treatment as the variable with the pretest score as a covariate, covariance analysis was completed on the performance posttest scores. The F ratio for treatment effect was 171.77 which was significant at the .001 level of significance with 1 and 17 degrees of freedom. The pretest scores accounted for a significant part of the variance with an F ratio of 5.99 which was significant at the .02 level of significance. As a result of analysis of covariance, the explained variance between the simulation group and the case study group resulted in an F ratio of
TABLE 5

COMPARISON OF THE MEANS AND STANDARD DEVIATIONS FOR TWO GROUPS ON TEACHER VERBAL COMMUNICATION PERFORMANCE SCORES

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Pretest Mean Score</th>
<th>Pretest Standard Deviation</th>
<th>Posttest Mean Score</th>
<th>Posttest Standard Deviation</th>
<th>Adjusted Posttest Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simulation Group</td>
<td>2.08</td>
<td>.43</td>
<td>5.31</td>
<td>.30</td>
<td>5.32</td>
</tr>
<tr>
<td>Case Study Group</td>
<td>1.89</td>
<td>.51</td>
<td>2.83</td>
<td>.49</td>
<td>2.82</td>
</tr>
</tbody>
</table>

aN = 10 in each group
bPerfect Performance Score: 6.00

88.88 which was significant at the .001 level of significance. (Table 6).

The immediate conjecture is that a simulation strategy may be useful for developing teacher verbal communication abilities of students enrolled in a methods of teaching home economics course. Students who experienced a simulation strategy were better able to display behavior patterns of teacher verbal communication than were students who experienced a case study strategy. The F values found were large and significant beyond the .001 level of significance.

However, the student performance pretest scores did account for a significant part of the variation. Results
TABLE 6
COVARIANCE ANALYSIS ON PERFORMANCE POSTTEST SCORES FOR TEACHER VERBAL COMMUNICATION COMPETENCIES

<table>
<thead>
<tr>
<th>Source Of Variation</th>
<th>Sums Of Squares</th>
<th>Degrees Of Freedom</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>29.85</td>
<td>1</td>
<td>29.85</td>
<td>171.77*</td>
</tr>
<tr>
<td>Performance Pretest</td>
<td>1.04</td>
<td>1</td>
<td>1.04</td>
<td>5.99*</td>
</tr>
<tr>
<td>Explained Variance</td>
<td>30.89</td>
<td>2</td>
<td>15.45</td>
<td>88.88**</td>
</tr>
<tr>
<td>Residual</td>
<td>2.95</td>
<td>17</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>33.84</td>
<td>19</td>
<td>1.78</td>
<td></td>
</tr>
</tbody>
</table>

*P .05 = 4.45 (with 1, 17 degrees of freedom)

**P .05 = 3.59 (with 2, 17 degrees of freedom)

of this magnitude may not be possible without the influence of a pretest where the students used their communication abilities prior to the simulation and case study experiences.

These findings are consistent with previous studies conducted by Vlcek (1965), Kersh (1963, 1965), and McDonald and Allen (1967). In their studies with classroom simulators and video tape recordings, they concluded that students learned appropriate behavior patterns most effectively when students were allowed to practice the behavior patterns in a realistic setting and to evaluate performances after each
exercise.

In contrast, results reported by Cruickshank et al. (1967) and Ponder and Heath (1972), using the Teaching Problems Laboratory protocol materials, did not support simulation as a means for changing student behavior. Unlike students in the protocol materials study where simulation did not produce significantly higher performance scores for experimental subjects, participants in this study experiencing a simulation strategy showed a higher performance score than participants experiencing a case study strategy.

Relationship of Specified Background Factors with Teacher Verbal Communication Performance for Students Experiencing a Simulation Strategy

The relationship between student education and experience background factors and teacher verbal communication performance gain scores was another concern in this study. The research hypothesis investigated was:

There is a positive relationship between performance gain scores on teacher verbal communication competencies for students who experience a simulation strategy and:

a. cumulative grade point average.
b. home economics courses grade point average.
c. number of home economics courses completed.
d. number of previous teaching experiences.
e. student perceived quality of previous teaching experiences.
f. number of previous leadership experiences.
g. student perceived quality of previous leadership experiences.

Results do not support the hypothesis that there is a positive relationship between teaching performance gain
scores on teacher verbal communication and the specified student education and experience background factors. All correlation coefficients were not found to be significant at the .05 level for the student education and experience background factors. (Table 7).

Data for this hypothesis were obtained from the student check sheet and rating scales of teaching experience and leadership experiences, from a review of academic records, and from the pooled ratings of the panel of judges on the teacher verbal communication abilities.

Using Pearson product-moment correlations, the coefficients indicated that there were no significant relationships between the student education and experience background factors and performance gain scores for students who experienced a simulation strategy. In fact, the cumulative grade point average, home economics courses grade point average, and number of home economics courses completed correlation coefficients were negative, but not significant at the .05 level.

Since the previous experiences in teaching and leadership roles did not show a significant relationship with the teacher verbal communication performance gain scores of students experiencing a simulation strategy, the probable effect of that strategy may have decreased the importance of those previous experiences. By focusing on specific teaching behavior patterns in a controlled situation, the
TABLE 7
RELATIONSHIP OF BACKGROUND FACTORS WITH TEACHER VERBAL COMMUNICATION PERFORMANCE GAIN SCORES OF STUDENTS EXPERIENCING A SIMULATION STRATEGY

<table>
<thead>
<tr>
<th>Education and Experience Background Factors</th>
<th>Mean Score&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Coefficient Of Correlation</th>
<th>Level Of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative Grade Point Average</td>
<td>2.97</td>
<td>-.12</td>
<td>.37</td>
</tr>
<tr>
<td>Home Economics Courses Grade Point Average</td>
<td>3.27</td>
<td>-.06</td>
<td>.44</td>
</tr>
<tr>
<td>Number of Home Economics Courses Completed</td>
<td>18.70</td>
<td>-.38</td>
<td>.14</td>
</tr>
<tr>
<td>Number of Previous Teaching Experiences</td>
<td>2.50</td>
<td>.18</td>
<td>.31</td>
</tr>
<tr>
<td>Quality of Previous Teaching Experiences</td>
<td>4.82</td>
<td>.12</td>
<td>.37</td>
</tr>
<tr>
<td>Number of Previous Leadership Experiences</td>
<td>5.30</td>
<td>.11</td>
<td>.38</td>
</tr>
<tr>
<td>Quality of Previous Leadership Experiences</td>
<td>4.35</td>
<td>.24</td>
<td>.22</td>
</tr>
</tbody>
</table>

<sup>a</sup>N = 10

P .05 = .6021 (with 9 degrees of freedom)

Simulation strategy apparently tended to decrease the impact of previous teaching and leadership experiences which were not focused on developing the specified abilities.

The correlations at a non-significant level between student education and experience background factors and
teacher verbal communication gain scores may be due to the type of abilities being developed. The lack of a significant relationship between academic status, number of home economics courses completed and teacher verbal communication performance gains may be that the amount of knowledge possessed does not insure that the student has the ability to impart that knowledge to others. The ability to acquire knowledge may require different behavior patterns than those required to transmit knowledge to others. Within the simulation experience, the role playing segment allowed students to demonstrate teacher verbal communication abilities whereas in the case study experience, the students discussed only the appropriate behaviors and possible consequences of those behaviors. If students are to be exposed to a simulation strategy in order to develop the specified abilities, then the prerequisite of high cumulative grade point average, high home economics courses grade point average, and number of home economics courses is not necessary for students to achieve high teacher verbal communication performance scores.

Relationship of Specified Background Factors with Teacher Verbal Communication Performance for Students Experiencing a Case Study Strategy

The third hypothesis was concerned with the relationship of those student education and experience background factors with teacher verbal communication performance gain scores of students experiencing a case study strategy. The
research hypotheses studied was:

There is a positive relationship between performance gain scores on teacher verbal communication abilities of students who experience a case study strategy and:

- a. cumulative grade point average.
- b. home economics courses grade point average.
- c. number of home economics courses completed.
- d. number of previous teaching experiences.
- e. student perceived quality of previous teaching experiences.
- f. number of previous leadership experiences.
- g. student perceived quality of previous leadership experiences.

A significant positive relationship between teacher verbal communication performance gain scores and cumulative grade point average was apparent for students experiencing a case study strategy. Results relating to the other experience and education background factors did not indicate a significant relationship at the .05 level of significance with teacher verbal communication performance gain scores. (Table 8).

Data for this hypothesis were obtained from the check sheet and rating scales for teaching and leadership experiences, from a review of academic records, and from the pooled ratings of the panel of judges ratings on the teacher verbal communication performances.

Correlation coefficients were calculated using the Pearson product-moment method with the results indicating no relationship between the performance gain scores for students experiencing the case study strategy and the education and experience background factors, except the cumulative
TABLE 8

RELATIONSHIP OF BACKGROUND FACTORS WITH TEACHER VERBAL COMMUNICATION PERFORMANCE GAIN SCORES OF STUDENTS EXPERIENCING A CASE STUDY STRATEGY

<table>
<thead>
<tr>
<th>Education and Experience Background Factors</th>
<th>Mean Score</th>
<th>Coefficient Of Correlation</th>
<th>Level Of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative Grade Point Average</td>
<td>3.04</td>
<td>.61*</td>
<td>.03</td>
</tr>
<tr>
<td>Home Economics Courses Grade Point Average</td>
<td>3.41</td>
<td>-.26</td>
<td>.24</td>
</tr>
<tr>
<td>Number of Home Economics Courses Completed</td>
<td>16.30</td>
<td>-.51</td>
<td>.06</td>
</tr>
<tr>
<td>Number of Previous Teaching Experiences</td>
<td>3.50</td>
<td>-.23</td>
<td>.26</td>
</tr>
<tr>
<td>Quality of Previous Teaching Experiences</td>
<td>5.08</td>
<td>.16</td>
<td>.33</td>
</tr>
<tr>
<td>Number of Previous Leadership Experiences</td>
<td>4.90</td>
<td>-.42</td>
<td>.12</td>
</tr>
<tr>
<td>Quality of Previous Leadership Experiences</td>
<td>4.55</td>
<td>.30</td>
<td>.20</td>
</tr>
</tbody>
</table>

\(a_N = 10\)

*\(P < .05 = .6021\) (with 9 degrees of freedom)

grade point average. A positive relationship at the .05 level of significance was apparent for that single factor.

The research hypothesis segment relating to cumulative grade point average was supported since that coefficient of .61 was significant at the .03 level of significance.
Apparently, when students are not exposed to teaching learning strategies which allow for the demonstration of an ability, the importance of academic achievement is greater than when students participate in an experience designed for application of specific abilities.

Results support the use of academic grades as a criterion for entrance into a methods course if a case study is to be used to develop teacher verbal communication abilities. Use of other student education and experience background factors as a prerequisite for the home economics methods course is apparently not necessary since no significant relationships are in evidence with the teacher verbal communication performance gain scores.

**Teaching Confidence**

Results relating to the fourth research hypothesis reveal the probable effect of a simulation strategy on teaching confidence in the teacher verbal communication abilities as perceived by the students. The research hypothesis investigated was:

*Students who experience a simulation strategy will show a higher posttest score on teaching confidence than students who experience a case study strategy.*

The research hypothesis was supported since results indicated that the posttest scores for the group where simulation was used was significantly higher in terms of teaching confidence than for the group experiencing a case study
strategy. The difference between scores was significant beyond the .05 level of significance (Table 10).

Data for this hypothesis were obtained from the pre- and posttest scores on the Teaching Confidence Rating Scale (Appendix A). An analysis of variance test on the pretest scores was computed to determine if the group differences existed on the pretest measure. Since results of the analysis of variance revealed significant differences in pretest scores for the two groups, the appropriate statistical test was analysis of covariance with the pretest scores as the single covariate to adjust for differences between the simulation and the case study groups.

Teaching confidence posttest scores ranged from 3.20 to 5.00 with a mean score of 4.34 for the simulation group (Appendix I). The posttest scores on teaching confidence ranged from 2.70 to 4.70 with a mean score of 3.91 for the case study group. The simulation group mean score was .43 points higher than the case study group mean posttest score and the standard deviation was .21 points lower. (Table 9)

Using teaching confidence posttest scores with the pretest scores as the single covariate, analysis of covariance was computed. The calculated F ratio for treatment effects, the simulation and case study strategies, was 5.04 which was significant at the .04 level of significance. The variance due to pretest teaching confidence scores accounted for an insignificant portion of the explained variance which was
TABLE 9
COMPARISON OF THE MEANS AND STANDARD DEVIATIONS
OF TWO GROUPS ON TEACHING CONFIDENCE SCORES

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Pretest Mean Score</th>
<th>Standard Deviation</th>
<th>Posttest Mean Score</th>
<th>Standard Deviation</th>
<th>Adjusted Posttest Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simulation Group</td>
<td>1.41</td>
<td>.17</td>
<td>4.34</td>
<td>.56</td>
<td>4.53</td>
</tr>
<tr>
<td>Case Study Group</td>
<td>1.74</td>
<td>.27</td>
<td>3.91</td>
<td>.77</td>
<td>3.71</td>
</tr>
</tbody>
</table>

aN = 10 in each group
bPerfect Teaching Confidence Score: 5.00

2.61. (Table 10).

One of the probable effects of a simulation strategy seemed to be a force which built self-confidence in teaching for students who participated in the simulation group. Students experiencing a simulation strategy were able to achieve higher scores on teaching confidence than students who experienced a case study strategy. The F value found was significant at the .05 level of significance.

The exposure of both groups to a pretest on teaching confidence did not appear to influence the explained variance to any significant degree. However, the total explained variance, when pretest scores were included in the
TABLE 10
COVARIANCE ANALYSIS ON TEACHING CONFIDENCE POSTTEST SCORES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sums Of Squares</th>
<th>Degrees Of Freedom</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>2.05</td>
<td>1</td>
<td>2.05</td>
<td>5.04*</td>
</tr>
<tr>
<td>Teaching Confidence Pretest</td>
<td>.07</td>
<td>1</td>
<td>.07</td>
<td>.18</td>
</tr>
<tr>
<td>Explained Variance</td>
<td>2.12</td>
<td>2</td>
<td>1.06</td>
<td>2.61</td>
</tr>
<tr>
<td>Residual</td>
<td>6.90</td>
<td>17</td>
<td>.41</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9.02</td>
<td>19</td>
<td>.48</td>
<td></td>
</tr>
</tbody>
</table>

*P .05 = 4.45 (with 1, 17 degrees of freedom)

P .05 = 3.59 (with 2, 17 degrees of freedom)

calculations, did not yield a significant difference between the simulation and case study groups.

Findings in this study were similar to results reported by Law (1972), Bogniard (1968), and Vlcek (1965) where simulation experiences produced greater teaching confidence posttest scores for participants than other strategies. When students are provided an opportunity to demonstrate teaching abilities within a controlled setting, their self-confidence in teaching behaviors tends to increase to a greater degree than when students do not have opportunities
to experiment with teaching behaviors.

**Relationship of Specified Background Factors with Teaching Confidence Gain Scores for Students Experiencing a Simulation Strategy**

The relationship between student education and experience background factors and teaching confidence gain for students experiencing a simulation strategy was investigated. The research hypothesis studied was:

There is a positive relationship between gain scores on teaching confidence of students who experience a simulation strategy and:

a. cumulative grade point average.

b. home economics courses grade point average.

c. number of home economics courses completed.

d. number of previous teaching experiences.

e. student perceived quality of previous teaching experiences.

f. number of previous leadership experiences.

g. student perceived quality of previous leadership experiences.

A positive relationship was evident between teaching confidence gain scores and cumulative grade point average, home economics courses grade point average, and the student perceived quality of previous leadership experiences for students experiencing a simulation strategy. The relationships were significant at the .05 level of significance (Table 11).

Data were derived from the student check sheet and rating scales on teaching and leadership experiences, from a review of academic records, and from the pre- and posttest scores of the teaching confidence scale.
### TABLE 11
RELATIONSHIP OF BACKGROUND FACTORS WITH TEACHING CONFIDENCE GAIN SCORES OF STUDENTS EXPERIENCING A SIMULATION STRATEGY

<table>
<thead>
<tr>
<th>Education and Experience Background Factors</th>
<th>Mean Score</th>
<th>Coefficient Of Correlation</th>
<th>Level Of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative Grade Point Average</td>
<td>2.97</td>
<td>.68*</td>
<td>.02</td>
</tr>
<tr>
<td>Home Economics Courses Grade Point Average</td>
<td>3.27</td>
<td>.61*</td>
<td>.03</td>
</tr>
<tr>
<td>Number of Home Economics Courses Completed</td>
<td>18.70</td>
<td>.42</td>
<td>.11</td>
</tr>
<tr>
<td>Number of Previous Teaching Experiences</td>
<td>2.50</td>
<td>-.27</td>
<td>.23</td>
</tr>
<tr>
<td>Quality of Previous Teaching Experiences</td>
<td>4.82</td>
<td>.01</td>
<td>.49</td>
</tr>
<tr>
<td>Number of Previous Leadership Experiences</td>
<td>5.30</td>
<td>.39</td>
<td>.13</td>
</tr>
<tr>
<td>Quality of Previous Leadership Experiences</td>
<td>4.35</td>
<td>.68*</td>
<td>.02</td>
</tr>
</tbody>
</table>

aN = 10
*P .05 = .6021 (with 9 degrees of freedom)

Pearson product-moment correlation coefficients revealed positive relationships which were significant between teaching confidence gain scores and cumulative grade point average, home economics courses grade point average, and the student perceived quality of previous leadership.
experiences for students participating in a simulation strategy. For cumulative grade point average, the correlation coefficient was .68 which was significant at the .02 level of significance. The relationship between teaching confidence gain scores and home economics courses grade point average for students experiencing a simulation strategy resulted in a correlation coefficient of .61 which was significant at the .03 level of significance. The student perceived quality of previous leadership experiences and teaching confidence gain scores relationship resulted in a coefficient of .68 which was significant at the .02 level of significance.

Unlike results reported by Law (1972) where academic status was not correlated with teaching confidence gain for students experiencing simulation, the findings in this study revealed that teaching confidence has a significant positive relationship with academic achievement for students in the simulation group. It is apparent that the relationship of academic achievement and teaching confidence gain was not decreased by experiences in a simulation strategy.

Even though the simulation strategy appears to have aided students in developing teaching confidence, that confidence gain was also probably influenced by academic status of the student in terms of cumulative grade point average and academic achievements in home economics courses. Results provide possible support for the contention that the
more that students participating in a simulation strategy
know, as reflected in academic grade point averages, the
more confidence they may develop in the teaching role.

The positive relationship which was evident between
teaching confidence gain and the student perceived quality
of previous leadership experiences indicated a need for
these students to participate in quality leadership roles
prior to enrollment in the methods of teaching home eco­
nomics course. Since the number of previous leadership ex­
periences did not relate significantly to teaching confi­
dence gains, it is apparent that emphasis should probably
be placed on the quality rather than the quantity of leader­
ship experiences when development of teaching confidence is
the goal in this type of situation.

Relationship of Specified Background Factors
with Teaching Confidence Gain Scores for
Students Experiencing a Case Study Strategy

The sixth hypothesis involved the relationship between
teaching confidence gain scores and specified education and
experience background factors for students experiencing a
case study strategy. The hypothesis investigated was:

There is a positive relationship between gain scores
on teaching confidence of students who experience
a case study strategy and:

a. cumulative grade point average.
b. home economics courses grade point average.
c. number of home economics courses completed.
d. number of previous teaching experiences.
e. student perceived quality of previous teaching experiences.
f. number of previous leadership experiences.
g. student perceived quality of previous leadership experiences.

Results did not support the research hypothesis that a positive relationship existed between teaching confidence gain scores and education and experience background factors of students experiencing a case study strategy. The quality of previous leadership experiences, as perceived by the students, was the only background factor which yielded a significant correlation coefficient, at the .05 level of significance, and this coefficient was negative. (Table 12).

Data for this hypothesis were obtained from a review of academic records, from the check sheet and rating scales on teaching and leadership experiences, and the pre- and post-test scores on teaching confidence.

Using Pearson product-moment correlations, the coefficients indicated no significant relationships between student education and experience background factors and gains in teaching confidence for students who participated in a case study strategy; except for the student perceived quality of leadership experiences and that resulted in a negative coefficient. The coefficient for the student perceived quality of previous leadership experiences of students in the case study group was -.67 which was significant at the .02 level of significance.
TABLE 12
RELATIONSHIP OF BACKGROUND FACTORS WITH TEACHING CONFIDENCE GAIN SCORES OF STUDENTS EXPERIENCING A CASE STUDY STRATEGY

<table>
<thead>
<tr>
<th>Education and Experience Background Factors</th>
<th>Mean Score</th>
<th>Coefficient Of Correlation</th>
<th>Level Of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative Grade Point Average</td>
<td>3.04</td>
<td>.28</td>
<td>.22</td>
</tr>
<tr>
<td>Home Economics Courses Grade Point Average</td>
<td>3.41</td>
<td>.14</td>
<td>.36</td>
</tr>
<tr>
<td>Number of Home Economics Courses Completed</td>
<td>16.30</td>
<td>.22</td>
<td>.27</td>
</tr>
<tr>
<td>Number of Previous Teaching Experiences</td>
<td>3.50</td>
<td>.03</td>
<td>.47</td>
</tr>
<tr>
<td>Quality of Previous Teaching Experiences</td>
<td>5.08</td>
<td>-.10</td>
<td>.39</td>
</tr>
<tr>
<td>Number of Previous Leadership Experiences</td>
<td>4.90</td>
<td>-.10</td>
<td>.39</td>
</tr>
<tr>
<td>Quality of Previous Leadership Experiences</td>
<td>4.55</td>
<td>-.67*</td>
<td>.02</td>
</tr>
</tbody>
</table>

aN = 10

*P .05 = .6021 (with 9 degrees of freedom)

The student perceived quality of previous leadership experiences was the only background factor which was significantly related to teaching confidence gain for students exposed to a case study strategy, and then negatively so. The other coefficients indicated no positive relationships
which were significant between teaching confidence gain scores and the student education and experience background factors at the .05 level of confidence.

A negative relationship of previous leadership experiences with gains in teaching confidence for students in this type of situation experiencing a case study strategy suggests that those student perceived quality experiences in leadership activities may be a basis for judging potential confidence gain in teaching if strategies involving case studies are to be used.

Law (1972) reported the finding of a significant negative relationship between teaching confidence gain and cumulative grade point average for students experiencing a strategy other than simulation. In contrast, results in this study indicated a positive coefficient, for students experiencing a case study strategy, between cumulative grade point average and teaching confidence gains. However, the correlation was not significant at the .05 level of confidence.

Negative insignificant coefficients evident for the student perceived quality of previous teaching experiences and number of previous leadership experiences may indicate that those factors were probably not necessary as prerequisites to develop self-confidence in teaching for the participants in the case study strategy.
The conjecture may be since teaching confidence gains are not positively correlated with education and experience background factors for students involved in a case study strategy, the need for these students to achieve high academic levels or to have teaching and leadership experiences prior to exposure to the strategy is not necessary to develop confidence in the teaching role.

In summary, the findings in this study support the feasibility of a simulation strategy as a means for developing teacher verbal communication abilities of students who were enrolled in a methods course in home economics education. Students who experienced simulation did achieve higher performance scores on teacher verbal communication and that performance gain was not significantly related to any of the specified background factors. Cumulative grade point average was the only background factor that was significantly related to teacher verbal communication performance gains for students experiencing the comparison case study strategy.

Results also indicated that the simulation strategy was a feasible means to increase student confidence in teaching. Gains in teaching confidence were significantly related to cumulative grade point average, home economics courses grade point average, and student perceived quality of previous leadership experiences for students in the simulation group; whereas a negative significant relationship was evident
between teaching confidence gains and student perceived quality of previous leadership experiences for students in the case study comparison group.
CHAPTER V

SUMMARY

The purpose in this study was to develop and test a simulation strategy designed to facilitate student achievement of performances in selected teacher verbal communication abilities. If student performance of a designated competency is required as a prerequisite to the student teaching experience, instructional strategies must offer opportunities for students to develop the competency in an organized structure such as a methods of teaching course.

A simulation experience was designed so that students had a structured situation in which to identify selected abilities and demonstrate those abilities which were overt behavior patterns evidence of performance attainment prior to entering the student teacher practicum. By exposure to simulation, students were allowed to experiment with behavior patterns in a controlled setting without the attendant pressures of performing as an experienced teacher.

Specific hypotheses investigated were:

1. Students who experience a simulation strategy will show a higher performance posttest score on teacher verbal communication abilities than students who experience a case study strategy.
2. There is a positive relationship between performance gain scores on teacher verbal communication abilities of students who experience a simulation strategy and

a. cumulative grade point average.
b. home economics courses grade point average.
c. number of home economics courses completed.
d. number of previous teaching experiences.
e. student perceived quality of previous teaching experiences.
f. number of previous leadership experiences.
g. student perceived quality of previous leadership experiences.

3. There is a positive relationship between performance gain scores on teacher verbal communication abilities of students who experience a case study strategy and

a. cumulative grade point average.
b. home economics courses grade point average.
c. number of home economics courses completed.
d. number of previous teaching experiences.
e. student perceived quality of previous teaching experiences.
f. number of previous leadership experiences.
g. student perceived quality of previous leadership experiences.

4. Students who experience a simulation strategy show a higher posttest score on teaching confidence than students who experience a case study strategy.

5. There is a positive relationship between gain scores on teaching confidence of students who experience a simulation strategy and

a. cumulative grade point average.
b. home economics courses grade point average.
c. number of home economics courses completed.
d. number of previous teaching experiences.
e. student perceived quality of previous teaching experiences.
f. number of previous leadership experiences.
g. student perceived quality of previous leadership experiences.
6. There is a positive relationship between gain scores on teaching confidence of students who experience a case study strategy and:

a. cumulative grade point average.
b. home economics courses grade point average.
c. number of home economics courses completed.
d. number of previous teaching experiences.
e. student perceived quality of previous teaching experiences.
f. number of previous leadership experiences.
g. student perceived quality of previous leadership experiences.

Method

Six teacher verbal communication abilities were selected on the basis of importance as evidenced by the findings of prior research of Becker (1949) and Robinson and Becker (1970). The simulation strategy involved the use of model video tape recordings, small group analysis of observations, and role playing of teacher verbal communication behavior patterns with feedback on those behaviors provided by peers. A case study strategy, using an illustrated lecture, analysis of teaching episodes, and group discussions on possible teacher verbal communications required in the situation, was designed and used with an intact laboratory group as the comparison treatment.

Research Design

A non-equivalent group quasi-experimental design was used to provide structure in probing the research hypotheses. An experimentally accessible population included 20 students enrolled in a course, Methods of Teaching Home
Economics, at Montana State University during Winter Quarter 1976. Using a table of random numbers, 19 of the 20 students were randomly assigned to the laboratory groups. The simulation and case study strategies were randomly assigned to the intact laboratory groups.

Procedure

Instructional modules and model video tape recordings of student teacher verbal communication abilities were developed and produced by the investigator for use in the simulation strategy. Another set of instructional modules with an accompanying illustrated lecture was developed for use in the case study strategy. Use of these instructional procedures formed the basis for assessment of student performance on the selected abilities and teaching confidence.

The simulation and case study experiences were presented to the respective intact laboratory groups as a part of the course structure in the Methods of Teaching Home Economics class. Pre- and posttesting of performance were completed with the use of video tape recordings of micro-lessons planned by students and presented to a group of six volunteer high school age youth. Teaching confidence was pre- and posttested during class lecture sessions immediately prior to and after the treatments in the laboratory sessions. The strategies as well as the pre- and posttesting of performance occupied a total of four two-hour
laboratory sessions for each group.

Measurement

Instruments used to collect data included a Teaching Confidence Scale, a Teaching Experience Rating Scale, a Leadership Experience Rating Scale, and a Teacher Communication Competencies Rating Scale. The teaching experience and leadership experience rating scales were administered to all students during the first class session of the course. At that time, permission to examine academic records was given by all participants. Information regarding selected student background factors which were considered to have potential importance in this study was: 1) cumulative grade point average, 2) home economics courses grade point average, 3) number of home economics courses completed, 4) number of previous teaching experiences, 5) student perceived quality of previous teaching experiences, 6) number of previous leadership experiences, and 7) student perceived quality of previous leadership experiences.

For purposes of assessing teaching performance on the selected competencies, a rating instrument was developed and used by a panel of judges selected for their ability in observational skills as well as experience background in secondary school teaching, supervision of secondary school teaching and teacher education.
Each pre- and posttest performance was rated individually by the panel members. Ratings were pooled to determine a comprehensive score on the teacher verbal communication abilities.

Data Analysis

A one way analysis of covariance was employed to test the difference in teacher verbal communication competencies and teaching confidence between groups of students experiencing simulation and case study strategies. Performance and teaching confidence pretests were the single covariate used to adjust posttest scores for differences between the two intact groups. The output for the SPSS program Version 6.01 included sums of squares, mean square, and degrees of freedom from which F levels were determined.

Correlations, using Pearson product-moment calculations, between student education and experience background factors and teaching performances gains and teaching confidence gains were computed for both the simulation and case study groups.

Findings

Higher posttest performance scores were achieved by students experiencing a simulation strategy focused on teacher verbal communication abilities than by students experiencing a case study strategy. Therefore, the research hypothesis was supported since the F value of 177.77 for treatment effects was significant at the .001 level of significance.
Student education and experience background factors showed no significant relationship with teacher verbal communication performance for students who experienced a simulation strategy. As a result of the correlations computed, no support for the research hypothesis was apparent.

Cumulative grade point average was positively related to teacher verbal communication performance gains for students experiencing a case study strategy, and significantly so. All other education and experience background factors were not found to be significantly related to teaching performance gains. Background factors such as home economics courses grade point average, number of home economics courses completed, number of previous teaching experiences, and number of previous leadership experiences did not yield significant correlation coefficients.

The video taped simulation experiences yielded statistical significance in terms of teaching confidence for students who participated in the experimental treatment. Support was evident for the hypothesis that students in the simulation group would score higher on teaching confidence than students in the case study group.

A significant positive relationship was evident between teaching confidence gain and selected education and experience background factors of students who experienced a simulation strategy. Specifically, cumulative grade point average, home economics courses grade point average, and student
perceived quality of previous leadership experiences yielded significant correlations with teaching confidence gains. All other background factors were found to have no significant relationship to teaching confidence gain for students experiencing a simulation strategy. The number of previous teaching experiences resulted in a negative insignificant correlation.

A negative significant relationship was evident between student perceived quality of leadership experiences and teaching confidence gains for students who experienced a case study strategy. All other student education and experience background factors were not found to be significantly related to teaching confidence gains for students in the case study treatment group. The number of previous leadership experiences and the student perceived quality of previous teaching experiences resulted in negative correlations with teaching confidence. Those coefficients were not significant at the .05 level of significance.

**Implications**

A simulation strategy to develop teacher verbal communication abilities and teaching confidence in those abilities is probably a feasible instructional alternative and offers implications for use in a home economics teacher education program.
1. Simulation experiences appear to be a satisfactory instructional strategy to develop teacher verbal communication abilities and would be useful in a pre-service home economics education course to prepare students for student teaching and the teaching role.

2. Simulation experiences appear to be a feasible instructional strategy to develop teaching confidence in teacher verbal communication abilities and would be beneficial in a pre-service methods course in home economics education to prepare students for student teaching and the teaching role.

3. Alternative instructional strategies are recommended for use in a home economics education methods course so that students with varied education and experience backgrounds may have optimum opportunities to develop teacher verbal communication abilities and teaching confidence in those abilities.

4. Retention of cumulative grade point average and home economics courses grade point average standards as a prerequisite for entrance into the home economics methods course seems to have merit for students with varied backgrounds to achieve readiness to participate in alternative instructional strategies and to benefit from experiences in those strategies.

5. Encouragement of student participation in leadership activities, which students perceive as being of value
in terms of developing teaching confidence and abilities, seems to have merit in order for students to achieve readiness for varied instructional procedures used in the home economics education methods course.

6. Since a multitude of media resources are available, it is within the realm of the home economics teacher educator to select instructional strategies and materials that are beneficial in assisting students with diverse education and experience backgrounds prepare for student teaching and the teaching role.

Recommendations for Research

Several areas of concern for future research were discovered as a result of this study.

1. Replication of the study using a Solomon Four-Group Design with an appropriate sample size would allow probing the effect of a simulation strategy on specified competencies, as well as the influence pretesting may have on the posttest performance scores. Using a design with an experimental and control group lacking the pretest, both the main effects of testing and the interaction of testing and simulation are determinable. Generalizability of findings would be increased, as well as replicating the effect of simulation in four different fashions, when compared with the generalizability possible from the quasi-experimental design used in this study. The combined effect of
maturation and history determined by comparing the pretests of two groups and the control group posttest would be additional information available through use of the Solomon Four-Group Design.

2. Answers must be sought concerning the transfer value to the student teaching situation of teacher verbal communication abilities and teaching confidence gained in a home economics education methods class. It is still uncertain whether these competencies and confidence gains will be retained for a period of time and used during the student teaching practicum.

3. Further investigation of the influences of student background factors is suggested to determine the actual impact each factor has on the abilities and teaching confidence gains in teacher verbal communication. Specifically, a question to answer is, How much of the abilities and confidence gains can be attributed to the student education and experience background factors?

4. Investigation of using class peers as the student audience rather than student actors may have merit for home economics teacher education classes in a college program where teenagers are difficult to locate at appropriate times.

5. Research is needed to determine the usefulness of simulation as a means for developing competencies other than teacher verbal communication ability. If the behavior
patterns are identified and descriptive criteria established, then each competency must be investigated in relation to appropriate strategies to assist students to attain desired performance levels.

The review of literature reported in Chapter II revealed that research evidence supporting simulation in the educational field and in teacher education is limited. Teacher educators are beginning to realize the potential of simulation strategies in developing teaching abilities which undergird competency-based teacher education. Replication of findings, even in specific situations, should be a requirement before innovations are employed on a general basis. Therefore, extensive experimentation would be necessary before employing simulation as an only technique in home economics teacher education courses on a broad basis.
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Unpublished Materials


APPENDIX A

TEACHING CONFIDENCE RATING SCALE
TEACHING CONFIDENCE RATING SCALE

Name: __________________________________________

Date: __________________________________________

Directions: Place an X in the column which most nearly describes your assessment of abilities. Select one response which reflects your overall attitude toward the statement. Please respond to all statements.

<table>
<thead>
<tr>
<th>I AM CONFIDENT THAT I:</th>
<th>Quite Confident</th>
<th>Somewhat Confident</th>
<th>Not At All Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. can use my speech to project enthusiasm in the concepts being taught.</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>2. can relate examples to help clarify the concept.</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>3. can speak clearly when presenting lessons.</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>4. can offer encouragement to students through praise.</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>5. can use voice to project interest when introducing new topics.</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>6. can respond accurately to student questions.</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>7. can emphasize certain points by using verbal cues.</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>8. can use precise language to explain a concept.</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>9. can emphasize certain points by using voice modulation.</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>10. can use verbal cues to guide students in a task performance.</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
</tbody>
</table>
I AM CONFIDENT THAT I:

11. can involve students in group discussions.

12. can elicit review at the close of the lesson.

13. can project an accepting attitude while talking with students.

14. can use prompting to help students expand their answers.

15. can aid students to form conclusions and summary statements.

16. can solicit feedback from students to determine their understanding of concepts.

17. can ask narrow questions which seek specific information.

18. can use paraphrasing to reiterate a point.

19. can redirect student discussion to other major concepts.

20. can use appropriate words and phrases which students can understand.
APPENDIX B

LEADERSHIP EXPERIENCE RATING SCALE
<table>
<thead>
<tr>
<th>Quality</th>
<th>Active</th>
<th>Officer</th>
<th>Exceptional</th>
<th>In Value</th>
<th>Strong</th>
<th>Adequate</th>
<th>In Value</th>
<th>Limited</th>
<th>In Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</tbody>
</table>

**RATING SCALES**

- Of Little Value
- Limited In Value
- Adequate In Value
- Strong In Value
- Superior In Value
- Exceptional

**ACTIVITIES**

1. Officer (not active)
2. Camp / hike group
3. Church youth group
4. Parish Student Council
5. Philhologia
6. Social group
7. Society
8. Square
9. Green Scouting
10. Camp Fire

**DIRECTIONS:** Place an X in the space provided which most nearly describes your role in the activity listed.
APPENDIX C

TEACHING EXPERIENCE RATING SCALE
# Teaching Experience

**Rating Scale**

**Name:**

**Directions:** Place an X in the space provided which most nearly describes your role in the teaching activity listed. In the second column, estimate the quality of that teaching experience using the scale provided. Mark the response which most nearly describes the value of that experience in relation to teaching ability.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assumed Major Responsibility</th>
<th>Assisted the Teacher</th>
<th>Quality:</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 4-H Junior Leader</td>
<td>X</td>
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<tr>
<td>2. Swimming Instructor</td>
<td>X</td>
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<tr>
<td>3. Sunday School Teacher</td>
<td>X</td>
<td></td>
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<td></td>
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<tr>
<td>4. Camp Fire Girls Junior Leader</td>
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<tr>
<td>5. Camp Recreation Leader</td>
<td>X</td>
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<tr>
<td>6. Girl Scout Junior Leader</td>
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<td>7. REA Appliance Demonstrator</td>
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<tr>
<td>8. Home Economics Ed. Para-Professional Experience</td>
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<tr>
<td>9. Other Experiences:</td>
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</tbody>
</table>

**Other Experiences:**

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---
APPENDIX D

TEACHER COMMUNICATION COMPETENCIES

RATING SCALE
**TEACHER COMMUNICATIONS COMPETENCIES**

**RATING SCALE**

<table>
<thead>
<tr>
<th>Judge:</th>
<th>Teacher Candidate Number:</th>
</tr>
</thead>
</table>

**DIRECTIONS:** Using the scale provided, assess the candidate's teacher communication competencies. If she accomplished the item, mark the level of achievement which most nearly describes her performance. If she did not accomplish the item, mark only the "Did Not Accomplish" space. If you were unable to observe behaviors relating to the stated criteria, mark the "No Opportunity To Observe" space.

<table>
<thead>
<tr>
<th>I. ABILITY TO EXPLAIN CONCEPTS:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Opportunity To Observe</td>
<td></td>
<td></td>
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<tr>
<td>Did Not Accomplish</td>
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<tr>
<td>Made concepts clear;</td>
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<td>presented ideas in an</td>
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<tr>
<td>orderly sequence;</td>
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<tr>
<td>avoided irrelevant material.</td>
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<tr>
<td>Made the major concepts clear;</td>
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<tr>
<td>presented ideas in a somewhat</td>
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<td>included some irrelevant</td>
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<td>material.</td>
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<td>Did not make concepts clear;</td>
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<tr>
<td>ideas were not presented in</td>
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<td>included irrelevant material.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>II. ABILITY TO BE DIRECT AND COMMUNICATIVE:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<tbody>
<tr>
<td>No Opportunity To Observe</td>
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<tr>
<td>Did Not Accomplish</td>
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<tr>
<td>Adapts material to the listener; displays</td>
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<tr>
<td>firmness and decisiveness when speaking;</td>
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<td>is enthusiastic; uses terms that are</td>
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<tr>
<td>meaningful to the listener.</td>
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<tr>
<td>Adapts most of the material to the listener;</td>
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<tr>
<td>displays some decisiveness and firmness when</td>
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<tr>
<td>speaking; lacks enthusiasm;</td>
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<td>projects some enthusiasm;</td>
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<tr>
<td>uses some complex terms.</td>
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</tr>
<tr>
<td>Did not adapt materials to the listeners;</td>
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<td>lacks firmness and decisiveness when</td>
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<tr>
<td>speaking; uses terms which are complex and</td>
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<tr>
<td>technical; does not project enthusiasm.</td>
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</tr>
</tbody>
</table>
### III. ABILITY TO USE AN EXPRESSIONISTIC VOICE:

<table>
<thead>
<tr>
<th>No Opportunity To Observe</th>
<th>Did Not Accomplish</th>
<th>Sometimes emphasizes or highlights ideas; uses some variety of voice quality, pitch, intensity and tempo; rate of speaking is somewhat irregular.</th>
<th>Does not emphasize or highlight ideas; uses very limited variety of voice quality, pitch, intensity and tempo; uses irregular rates of speech.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Emphasizes or highlights key ideas; uses a variety of voice quality, pitch, intensity and tempo; uses a suitable rate of speaking.</td>
<td>Emphasizes or highlights ideas; uses some variety of voice quality, pitch, intensity and tempo; rate of speaking is somewhat irregular.</td>
</tr>
</tbody>
</table>

### IV. ABILITY TO BE EASILY HEARD AND UNDERSTOOD:

<table>
<thead>
<tr>
<th>No Opportunity To Observe</th>
<th>Did Not Accomplish</th>
<th>Speaks clearly and distinctly; uses the appropriate loudness; alters loudness when occasion demands it.</th>
<th>Does not speak clearly and distinctly; tends to mumble words; mispronounces words; uses irregular loudness.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Speaks clearly and distinctly most of the time; uses appropriate loudness most of the time; alters loudness irregularly.</td>
<td>Speaks clearly and distinctly; uses the appropriate loudness; alters loudness when occasion demands it.</td>
</tr>
</tbody>
</table>

### V. ABILITY TO PROJECT A PLEASANT VOICE:

<table>
<thead>
<tr>
<th>No Opportunity To Observe</th>
<th>Did Not Accomplish</th>
<th>Uses a tone that is vibrant and colorful; uses a pitch level that does not annoy; voice has a soft and friendly quality.</th>
<th>Uses a tone that is dull and uneventful; uses a pitch level that tends to intermittently annoy; voice tends to be harsh and brash.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Uses a neutral tone; uses a pitch level that tends to intermittently annoy; voice tends to be harsh and brash.</td>
<td>Uses a tone that is vibrant and colorful; uses a pitch level that does not annoy; voice has a soft and friendly quality.</td>
</tr>
</tbody>
</table>

### VI. ABILITY TO USE THE LANGUAGE:

<table>
<thead>
<tr>
<th>No Opportunity To Observe</th>
<th>Did Not Accomplish</th>
<th>Uses language that is clear and interesting; has fluency and ease in word pronunciation; uses acceptable grammar.</th>
<th>Uses language that is not clear and interesting; does not have fluency and ease in word pronunciation; uses inappropriate grammar.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Uses language that is somewhat clear and interesting; has some fluency and ease in word pronunciation; uses some inappropriate grammar.</td>
<td>Uses language that is clear and interesting; has fluency and ease in word pronunciation; uses acceptable grammar.</td>
</tr>
</tbody>
</table>
APPENDIX E

PANEL OF JUDGES DEMOGRAPHIC INFORMATION FORM
PANEL OF JUDGES

DEMOGRAPHIC INFORMATION

Name: ________________________________

DIRECTIONS: Complete the following form by supplying the appropriate information in the space provided.

1. List the total number of years of experience you have had in secondary school classroom teaching.

2. List the total number of years of experience you have had in secondary school supervision.

3. List the total number of years of experience you have had in teacher education.

4. Indicate your experience level with the video tape recording medium by placing a check in the space preceding the descriptive phrase which most closely describes your experience level.

    _____ No experience with the video tape recording medium.

    _____ Minimum experience with the video tape recording medium.

    _____ Adequate experience with the video tape recording medium.

    _____ Extensive experience with the video tape recording medium.
APPENDIX F

SIMULATION EXPERIENCE IN PREPARATION
FOR HOME ECONOMICS STUDENT TEACHING
SIMULATION EXPERIENCES IN PREPARATION
FOR HOME ECONOMICS STUDENT TEACHING

Simulation is a strategy for learning which offers opportunities for the prospective student teacher to identify with and participate in a series of reality situations one might encounter in the classroom. The use of simulation strategies in teacher education has developed due to the need for providing structured situations where future teachers may practice the teaching behaviors appropriate to the act of teaching.

The major objectives of the simulation experiences are:

1. To improve behaviors relating to teacher verbal communication abilities.

2. To develop confidence in ability to verbally communicate in the classroom by:
   a. analyzing the role of a student teacher in specified lesson presentations.
   b. using appropriate instructional materials and resources.
   c. determining a variety of alternative teacher verbal communication behaviors.
   d. analyzing possible consequences of those teacher verbal communications behaviors.
   e. assessing abilities to use teacher verbal communication to transmit information.

In this simulation experience module, you will encounter simulation experiences with the use of video tape recordings of classroom happenings. The purpose in this strategy is to assist you to become aware of teaching behaviors relating to teacher verbal communications, and to aid your incorporation of those behaviors into your teaching abilities.

You will be provided with supplementary materials relating to the six video tape recording teaching situations, the lesson plan, and procedural guidelines to direct your observations and analysis. After viewing the video tape recordings of micro lessons, you will analyze what you observed in terms of teacher verbal communication behaviors, and role play the teaching situation to practice alternatives of behavior in teacher verbal communication.
Procedures to follow in completing the simulation experience module:

Step 1: Participate in the orientation to the simulation experience module presented by the instructor.

Step 2: Review the six abilities relating to teacher verbal communications in the classroom.

Step 3: View an illustration model of teacher verbal communication on the video tape recording.

Step 4: Discuss, in the assigned small group, observations related to the teacher verbal communication abilities.

Step 5: Practice, in the assigned small group, the teacher verbal communications abilities. Use the lesson plan and other instructional materials provided in the Home Economics Education laboratory.

Step 6: Analyze those teacher verbal communication abilities you displayed in the role play situation.

Step 7: Repeat Step 3 - 6 for all video tape recordings.
Teacher verbal communication belongs to the general class of activities known as communication. To communicate means to make that which one knows common to others; in other words, to share with others that which is primarily one's own. This sharing can be accomplished by using conventionalized sounds, vocal cues, and voice modulation.

Verbal communication is a form of symbolic behavior. Behavior is usually thought of as a way in which a person reacts to various stimuli. Verbal communication is a highly significant way of behaving in classrooms for the purpose of stimulating students to learn. Teacher usage of verbal messages, expressed through the symbols of words, vocal cues, and voice change, impart such things as perceptions of the world, emotions, desires, intents, and beliefs.

The ability to interpret facts and events in terms understood by classroom students depends a great deal upon knowledge of and proficiency in the use of symbols. Since this is done more through speaking and listening than in any other way, verbal communications attitudes, habits, and skills become of prime importance.

In order to adapt the use of verbal communications to the task of teaching, it is helpful to focus on six central goals. Studies of the verbal communication characteristics of superior and inferior high school teachers conducted by Robinson and Becker revealed ten qualities having a pronounced influence on effectiveness in classroom teaching. Six of those qualities relate specifically to verbal communication.

Six abilities of teacher verbal communication are:

1. The ability to explain concepts: making concepts clear, presenting ideas in an orderly sequence; avoiding irrelevant material.

2. The ability to be direct and communicative: adapting material to the listener; displaying firmness and decisiveness when speaking; being enthusiastic; using terms that are meaningful to the listener.
3. The ability to use an expressive voice: emphasizing or highlighting key ideas; using a variety of voice qualities, pitch, intensity, and tempo; using a suitable rate of speaking.

4. The ability to be easily heard and understood: speaking clearly and distinctly; using appropriate loudness; altering loudness when occasion demands it.

5. The ability to project a pleasant voice: using a tone that is vibrant and colorful; using a pitch level that does not annoy; having a soft and friendly quality.

6. The ability to use language: using language that is clear and interesting; having fluency and ease in word pronunciation; using acceptable grammar.
Situation

In a seventh grade Home Economics class, you are to conduct a group discussion on Babysitting Rights and Responsibilities. This lesson is a part of the child development unit which emphasizes the pre-school age child. After completing the routine tasks of classroom management; recording attendance and making announcements; you are ready to introduce the topic of the lesson and direct the group discussion on concepts basic to babysitting rights and responsibilities. Review the lesson plan and supplementary instructional materials and determine the teacher verbal communications abilities necessary to teach the lesson.

Lesson Plan

Subject: Junior High Home Economics
Grade: Seventh

Unit Title: Caring For Children

Lesson Objective: The student will:

1. Identify the responsibilities involved in babysitting.
2. Identify the rights of a babysitter.

Lesson Generalization: Babysitting is a serious job to be learned and practiced and improved on. The sitter gives definite services and satisfactions in return for an agreed on rate of pay.

Introduction:

Prepare the class and present the filmstrip (3 minutes) on Babysitting-The Job. Discuss with the class what they observed in the filmstrip relating to babysitter rights and responsibilities.
<table>
<thead>
<tr>
<th>Key Questions</th>
<th>Content Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What information do you need before accepting the job?</td>
<td>Items to consider before accepting a babysitting job:</td>
</tr>
<tr>
<td></td>
<td>a. fees</td>
</tr>
<tr>
<td></td>
<td>b. number and ages of the children</td>
</tr>
<tr>
<td></td>
<td>c. time needed to complete the job</td>
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<tr>
<td></td>
<td>d. extra responsibilities required</td>
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<tr>
<td></td>
<td>e. rules and regulations for the children</td>
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<tr>
<td></td>
<td>f. location of the job</td>
</tr>
<tr>
<td>2. What are some of the tasks you may perform while on the job?</td>
<td>Responsibilities and tasks while on the job.</td>
</tr>
<tr>
<td></td>
<td>a. meal preparation and feeding</td>
</tr>
<tr>
<td></td>
<td>b. special diets, likes and dislikes of the children</td>
</tr>
<tr>
<td></td>
<td>c. operation of some of the household equipment:</td>
</tr>
<tr>
<td></td>
<td>- light switches</td>
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<tr>
<td></td>
<td>- thermostat</td>
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<tr>
<td></td>
<td>- tv or record players</td>
</tr>
<tr>
<td></td>
<td>- fire extinguisher</td>
</tr>
<tr>
<td></td>
<td>- kitchen range &amp; small appliances</td>
</tr>
<tr>
<td></td>
<td>d. emergency phone numbers</td>
</tr>
<tr>
<td></td>
<td>- Doctors number</td>
</tr>
<tr>
<td></td>
<td>- Parents' phone number</td>
</tr>
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<td></td>
<td>- others to call in case of an emergency</td>
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<tr>
<td></td>
<td>e. special instructions in caring for the child</td>
</tr>
<tr>
<td></td>
<td>f. play activities which will aid the child</td>
</tr>
<tr>
<td></td>
<td>- songs</td>
</tr>
<tr>
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<td>- poems</td>
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<td>- hand games</td>
</tr>
<tr>
<td></td>
<td>- toys</td>
</tr>
<tr>
<td></td>
<td>- stories</td>
</tr>
<tr>
<td></td>
<td>- others</td>
</tr>
<tr>
<td>Key Questions</td>
<td>Content Outline</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------</td>
</tr>
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</table>
| 3. What are some of your rights as a babysitter? | Babysitting Rights:  
  a. Parents will be home at the designated hour.  
  b. Parents will provide transportation or make arrangements for your arrival and departure.  
  c. Payment according to the agreed price.  
  d. Children are oriented to the rules to follow while with the babysitter. |

Summary: Explain the academic game puzzle which each student will complete (crossword puzzle) which requires terms associated with the babysitter rights and responsibilities.
APPENDIX G

CASE STUDY EXPERIENCES IN PREPARATION
FOR HOME ECONOMICS STUDENT TEACHING
Using case studies as a strategy for learning offers opportunities for the prospective student teacher to identify with realistic situations one might encounter in the classroom. By using case studies, students can visualize "real world situations" without having to be an observer in the classroom. The use of case studies in teacher education has developed due to the need for providing alternatives where future teachers can analyze teaching abilities without participating in actual junior or senior high school classroom situations.

The major objectives of the case study experiences are:

1. To improve behaviors relating to teacher verbal communications abilities.

2. To develop confidence in ability to verbally communicate in the classroom by:
   a. analyzing the role of a student teacher in specified lesson presentations.
   b. using appropriate instructional materials and resources.
   c. determining a variety of alternative teacher verbal communication behaviors.
   d. analyzing possible consequences of those teacher verbal communications behaviors.
   e. assessing abilities to use teacher verbal communication to transmit information.

In this case study experience module, you will encounter selected classroom situations which are typical for student teachers. The purpose in this strategy is to assist you to become aware of teaching behaviors relating to teacher verbal communications, and to aid your incorporation of those behaviors into your teaching abilities.

You will be provided with supplementary materials relating to the teaching situation, the lesson plan, and procedure guidelines to direct your observations and analysis. After reading the case situation of a micro lesson, you will discuss possible verbal communication skills to use and explore outcomes of using those behaviors in teaching the lesson.
Procedures to follow in completing the case study experience module:

Step 1: Participate in the orientation to the case study experience module presented by the instructor.

Step 2: Review the six abilities relating to teacher verbal communication in the classroom.

Step 3: Review the case study situations and accompanying lesson plans.

Step 4: Discuss possible techniques and modes of teacher verbal communication behaviors appropriate to teach the lesson.

Step 5: Discuss possible consequences of using those various teacher verbal communication behaviors.

Step 6: Repeat Step 3 - 5 for all the case studies included in the module.
TEACHER VERBAL COMMUNICATION ABILITIES

Teacher verbal communication belongs to the general class of activities known as communication. To communicate means to make that which one knows common to others; in other words, to share with others that which is primarily one's own. This sharing can be accomplished by using conventionalized sounds, vocal cues, and voice modulation.

Verbal communication is a form of symbolic behavior. Behavior is usually thought of as a way in which a person reacts to various stimuli. Verbal communication is a highly significant way of behaving in classrooms for the purpose of stimulating students to learn. Teacher usage of verbal messages, expressed through the symbols of words, vocal cues, and voice change, impart such things as perceptions of the world, emotions, desires, intents, and beliefs.

The ability to interpret facts and events in terms understood by classroom students depends a great deal upon knowledge of and proficiency in the use of symbols. Since this is done more through speaking and listening than in any other way, verbal communications attitudes, habits, and skills become of prime importance.

In order to adapt the use of verbal communications to the task of teaching, it is helpful to focus on six central goals. Studies of the verbal communication characteristics of superior and inferior high school teachers conducted by Robinson and Becker revealed ten qualities having a pronounced influence on effectiveness in classroom teaching. Six of those qualities relate specifically to verbal communication.

Six abilities of teacher verbal communication are:

1. The ability to explain concepts: making concepts clear, presenting ideas in an orderly sequence; avoiding irrelevant material.

2. The ability to be direct and communicative: adapting material to the listener; displaying firmness and decisiveness when speaking; being enthusiastic; using terms that are meaningful to the listener.
3. The ability to use an expressive voice: emphasizing or highlighting key ideas; using a variety of voice qualities, pitch, intensity, and tempo; using a suitable rate of speaking.

4. The ability to be easily heard and understood: speaking clearly and distinctly; using appropriate loudness; altering loudness when occasion demands it.

5. The ability to project a pleasant voice: using a tone that is vibrant and colorful; using a pitch level that does not annoy; having a soft and friendly quality.

6. The ability to use language: using language that is clear and interesting; having fluency and ease in word pronunciation; using acceptable grammar.
MODULE EXPERIENCE V

Situation

In a Home Economics II class, you are to conduct a discussion on the Labeling Acts relating to fabric and fiber content. The lesson is a segment of the Consumer Education and Management unit being presented to sophomore level students. After completing the classroom management tasks of making announcements and recording attendance, you are ready to introduce the topic and conduct the class discussion. Review the lesson plan and instructional materials provided and determine the teacher verbal communication behaviors which would be appropriate to teach this lesson.

Lesson Plan

Subject: Home Economics II
Grade: Sophomore

Unit Title: Consumer Education and Management

Lesson Objective: The student will:

1. Analyze the legislative requirements which determine the standards required on fabric and fiber labels.

Lesson Generalization: Certain legislative acts regulate the fiber content and fabric designations of clothing and textiles products for consumer use.

Introduction:

Distribute several boxes of brownies which are available in the local food stores. Instruct each student to examine the boxes and answer the question "What information is provided about the contents of this box?" Relate answers to what a garment would be like with minimum or no labels... i.e. what if some one is allergic to one of the fibers in the dress; what care instructions are necessary so the consumer can properly clean and repair the garment?
### Key Questions

1. **What governmental agency is responsible for the regulation of textiles labeling?**

   The Federal Trade Commission is responsible for administering the monitor process of textiles labeling.

2. **Which legislative acts affect textiles labels?**

   Legislative Acts affecting textiles labels:
   - a. Wool Products Labeling Act of 1939
   - b. The Fur Products Labeling Act
   - c. Textile Fiber Products Identification, 1960
   - d. Care Labeling of Textile Wearing Apparel of July, 1972

3. **What are the provisions in each act?**

   **Wool Products Labeling Act of 1939:**
   - a. clarified labeling terms: wool, virgin wool, lamb's wool were used for the first time in textiles labels.
   - b. the amount of wool in the product is indicated by the percentage of weight, type of wool specified on the label.

   **The Fur Products Labeling Act:**
   - a. label must list animal that produced the fur.
   - b. must state if the fur has been bleached, dyed, or otherwise artificially colored.
   - c. must include the name of any country where the fur originated.
Textile Fiber Products Identification Act, 1960:
   a. major fibers in the product must be identified.
   b. percentage of each fiber must be listed.
   c. fiber content is listed in order of predominance for every fiber which makes up 5% or more of the fiber weight.
   d. manufacture of product or persons marketing the product must be identified.
   e. (Imported products) list the name of the country where the imported textile fiber product was processed or manufactured.

Care Labeling of Textile Wearing Apparel of July, 1972:
   a. domestic and imported items that were manufactured after July 2, 1972 must contain permanent labeling with appropriate care instructions
      - finished articles of textile wearing apparel that require care
      - piece goods made for the purpose of conversion by consumer into finished articles of wearing apparel
   b. pre-packaged items, must be visible through the wrap or duplicate instructions on the package.
<table>
<thead>
<tr>
<th>Key Questions</th>
<th>Content Outline</th>
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<tr>
<td>c. practice of &quot;low labeling&quot; is prohibited: &quot;Dry Clean Only&quot; must not be washable as well.</td>
<td>c. practice of &quot;low labeling&quot; is prohibited: &quot;Dry Clean Only&quot; must not be washable as well.</td>
</tr>
<tr>
<td>d. exceptions to permanent labels</td>
<td>d. exceptions to permanent labels</td>
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<td>-articles priced under $3 that are washable under any conditions</td>
<td>-articles priced under $3 that are washable under any conditions</td>
</tr>
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<td>-garments that might be aesthetically impaired by a label (see-thru fabric)</td>
<td>-garments that might be aesthetically impaired by a label (see-thru fabric)</td>
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<td>-headwear, handwear, all footwear except hosiery.</td>
<td>-headwear, handwear, all footwear except hosiery.</td>
</tr>
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<td>-articles not made in whole or in part from textile products</td>
<td>-articles not made in whole or in part from textile products</td>
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<td>-disposable articles</td>
<td>-disposable articles</td>
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<tr>
<td>e. yard goods:</td>
<td>e. yard goods:</td>
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<tr>
<td>-triangle system: 9 basic care designations</td>
<td>-triangle system: 9 basic care designations</td>
</tr>
<tr>
<td>-label and tube end of the fabric include triangle which contains the number code.</td>
<td>-label and tube end of the fabric include triangle which contains the number code.</td>
</tr>
</tbody>
</table>

Summary: Instruct students to review the sample labels provided and determine what information is provided and how it is listed or stated on the label. Request reports from each of the students concerning their particular label.
APPENDIX H

PRETEST AND POSTTEST PERFORMANCE RATINGS ON
TEACHER VERBAL COMMUNICATION COMPETENCIES
SOURCE DATA
PRETEST AND POSTTEST PERFORMANCE RATINGS ON
TEACHER VERBAL COMMUNICATION COMPETENCIES
SOURCE DATA

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aPerfect Performance Score: 6.00
APPENDIX I

PRETEST AND POSTTEST RATINGS ON TEACHING CONFIDENCE

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^a Perfect Teaching Confidence Score: 5.00
APPENDIX J

EDUCATION AND EXPERIENCE BACKGROUND FACTOR RATINGS
FOR STUDENTS IN THE SIMULATION GROUP

SOURCE DATA
### EDUCATION AND EXPERIENCE BACKGROUND FACTOR RATINGS
FOR STUDENTS IN THE SIMULATION GROUP
SOURCE DATA

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### Background Factors

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APPENDIX K

EDUCATION AND EXPERIENCE BACKGROUND FACTOR RATINGS
FOR STUDENTS IN THE CASE STUDY GROUP
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