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COMPARISON OF PERFORMANCE BY HOME ECONOMICS TEACHERS PARTICIPATING
IN TWO IN-SERVICE EDUCATION APPROACHES

The University of Arizona

PH.D.

1979

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COMPARISON OF PERFORMANCE BY HOME ECONOMICS
TEACHERS PARTICIPATING IN TWO IN-SERVICE
EDUCATION APPROACHES

by
Shirley Jo Harris Taylor

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF SECONDARY EDUCATION
In Partial Fulfillment of the Requirements
For the Degree of
DOCTOR OF PHILOSOPHY
In the Graduate College
THE UNIVERSITY OF ARIZONA

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I hereby recommend that this dissertation prepared under my direction
by Shirley Jo Harris Taylor
entitled COMPARISON OF PERFORMANCE BY HOME ECONOMICS TEACHERS
PARTICIPATING IN TWO IN-SERVICE EDUCATION APPROACHES
be accepted as fulfilling the dissertation requirement for the Degree
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ABSTRACT

The purpose of this study was to begin a systematic search for information on which to base decisions concerning in-service education for home economics teachers in southern Arizona. The study was conducted to compare the relative merit of two approaches to in-service education. Specific objectives for the study were to determine: (1) whether teachers who participated in an in-depth training session on the teaching strategy of role playing would achieve a greater change in level of performance in use of the strategy than those who received no training from the investigator and (2) whether teachers who participated in an in-depth training session on role playing plus individualized follow-up would achieve a greater change in level of performance than those who participated in the in-depth training session only.

The study was conducted using a three group pre- and postevaluation quasi-experimental design. The population of the study was of volunteer nature making generalization of the findings impossible.

Twenty-seven volunteers from a population of 180 home economics teachers in southern Arizona participated in the study. Eighteen of these teachers participated in an in-depth training session on the teaching strategy of role

playing, thus becoming the experimental component. From these 18 teachers, nine took part in an in-service education approach of in-depth training plus individualized follow-up (Group A) and nine received in-depth training only (Group B). The control component (Group C) included nine other teachers who received no training on role playing from the investigator. All 27 participants were audiotaped as they used the role playing strategy in their classrooms to assess existent skill in use of the strategy. Group A teachers received training and follow-up before the postevaluation taping was done. Postevaluation tapings for Group B were completed after training. Group C teachers were taped for postevaluation from 3 to 5 weeks after the preevaluation taping. Using a criterion-referenced rating scale developed by the investigator, trained raters evaluated the audiotapes to assess level of teachers' performance of the strategy of role playing. Data were also collected from a demographic survey and a subjective evaluation of the in-depth training session completed by each participant. Informal interviews with participants revealed successes, problems, and other benefits perceived by teachers.

Analysis of variance at the .001 level of significance showed positive significant difference in level of participants' performance of the role playing strategy when comparing teachers who received in-depth training with those who received no training. No significant difference in

change in level of teachers' performance of the strategy as shown when comparing teachers who received in-depth training plus individualized follow-up with teachers who received in-depth training only. Subjective evaluation of the in-depth training session was positive. Anecdotes reported to the investigator evidenced positive teacher attitudes toward the use of role playing as a teaching strategy. Various other benefits derived from use of the strategy were also reported by teachers.

Recommendations for further research included extensive study comparing the effectiveness of other approaches of in-service education and replication of this study with variations of methods and procedures. Continued research designed to identify effective in-service education practices was seen as a high priority.

CHAPTER I

THE PROBLEM AND HYPOTHESES TESTED

Introduction

Since changes in the field of educational endeavor are so widespread, in-service teacher education has a responsibility for providing the necessary resources and support for teachers as they attempt to meet the challenges of educating youth (Johnson and Graftsky, 1972). The statement ". . . there is no such thing as a 'complete' teacher" by Jackson (1971, p. 27) highlights the significance of in-service education in the total process of teacher education. Changes in society as a whole and education in particular very quickly make obsolete the practices and procedures that teachers learn (Tyler, 1971; Rubin, 1978). Teachers need assistance and support to develop or refine the instructional competencies that will enable them to meet the continuous challenges of change. The essential function of in-service education is to continue the education of teachers throughout their professional lives (Hass, 1957; Jackson, 1971).

In-service is not a new concept in education; for well over a century teachers in the United States have been offered in-service education in a variety of approaches.

In-service education became a major thrust in education in the 1960's and continues to be a concern (Edelfelt and Lawrence, 1975).

For the past several years, improvement of professional performance of teachers on the job has been a high priority of the Arizona State Board of Education. This priority is evidenced by actions such as the setting of policy providing for performance-based teacher recertification and a teacher intern policy. Another means of improving teacher performance is viable state funded in-service programs for vocational teachers in Arizona.

Specific evidence of this concern for teacher development is that since 1972 the Arizona Department of Education, Division of Vocational Education, has funded in-service education projects at the University of Arizona for home economics teachers. The model of operation of one of these projects, the In-Service Education for Home Economics Teachers Project, has been to build a program developed from requests of teachers. In the main, these requests have been made in response to questions and suggestions of the person charged with responsibility for the program, the in-service home economics teacher educator. The requests made by teachers concerned general problems in curriculum development, classroom management, and resources for teaching. Until recently assistance with specific teaching techniques had been neither requested nor offered. In 1978,

teachers began to ask for in-depth work on teaching strategies.

Educators have not questioned the need for in-service; however, there has been little systematic study as to what effective in-service education is or should be (Yates, 1970; Centre for Educational Research and Innovation [CERI], 1978; Harris, Bessent, and McIntyre, 1969). Particularly, there had been little study of the effectiveness of approaches for working with teachers relative to developing skill in using specific teaching strategies. Since no systematic study had been made of the effectiveness of specific approaches in improving performance of teachers it seemed critical to undertake a detailed study in order to provide information for making decisions concerning in-service education for home economics teachers in Arizona.

Need for the Study

The human and material resources available for carrying out the In-Service Education for Home Economics Teachers Project at The University of Arizona were limited. Evidence concerning approaches to in-service education that would utilize the limited resources most effectively was lacking. There was need for systematically acquired information on which to base decisions concerning in-service education for home economics teachers in Arizona. The study focused on the question of whether some approaches to

in-service education had greater potential for enabling teachers to change and to increase their competence than others. Role playing was the teaching strategy chosen as the vehicle for examining the relative merit of different approaches to in-service education.

Statement of the Problem

The study was designed to provide information regarding two questions. Will teachers who participate in an in-depth study of the use of the teaching strategy of role playing achieve a greater change in level of performance in use of role playing than those who receive no training? Will home economics teachers who participate in in-service education in the use of the teaching strategy of role playing through (1) a group in-depth training session and (2) individualized follow-up achieve a greater change in level of performance in use of role playing than those who participate only in the training session?

Hypotheses Tested

The following null hypotheses provided order and direction for the study.

1. There will be no significant difference in change in level of performance of the teaching strategy of role playing between home economics teachers who receive in-depth training from the investigator and those who receive no training from the investigator.

2. There will be no significant difference in change in level of performance of the teaching strategy of role playing between home economics teachers who participate in an in-depth group training session plus individualized follow-up and those who participate only in the in-depth group training session.

Assumptions, Limitations, and Definitions

The contextual framework of the study included:

(1) underlying assumptions, (2) limitations, and (3) definitions.

Assumptions

Several assumptions were made by the investigator undertaking this study. It was assumed that:

1. All subjects involved would make bona fide attempts to increase skills in use of the role playing strategy.
2. All subjects would give thoughtful responses to information sought.
3. Schools with populations of similar size in southern Arizona would present similar teaching situations.

Limitations

The potential to generalize concerning the findings of this study was limited by several factors.

1. The small size of the population and sample places limitations on the degree to which generalization can be made to other populations.
2. The volunteer nature of the sample does not permit generalization of the findings to non-volunteer populations.
3. In an in-service program in the public schools, there are variables over which an investigator has no control and which thus limit potential to generalize.
4. The investigator-developed rating scale used to assess performance of teachers was one for which reliability had not been established.

Definitions

The following definitions were used throughout the study:

1. Change: a process of giving a different position, course, or direction to something; a process which a person experiences in an individual way.
2. Groups: participants of this study were divided into three groups as follows:

- a. Group A: those who participated in in-depth training plus individualized follow-up, an experimental group.
 - b. Group B: those who participated in in-depth training only, an experimental group.
 - c. Group C: those who received no training by the investigator, a control group.
3. Individualized follow-up: in-service activities based on a teacher's concerns and designed to assist the teacher in using and/or adapting a teaching strategy in a particular classroom setting.
4. In-service education: planned activities in which teachers participate for the purpose of improving their professional performance.
5. Level of performance: quality of performance of a teaching strategy ranging from ineffective to highly effective use of the strategy as determined through use of a rating scale developed by the investigator.
6. Model of teaching: a teaching-learning strategy developed by an educator and described in the literature in enough detail to permit other educators to use it in their own teaching-learning situations (Weil and Joyce, 1978).
7. Role playing: a teaching strategy in which a problem is delineated and members of the group act out roles spontaneously as they think persons would act in the

problem situation, discuss the enactment, and make tentative decisions in light of the consequences (Shaftel, 1950; Shaftel and Shaftel, 1967).

8. Teaching strategy: a procedure selected and/or designed by teachers to use in enabling students to achieve learning objectives.
9. Training session: group activities of five to six hours' duration designed to assist participants to learn to use a particular teaching strategy (Weil and Joyce, 1978).

Summary

While it is generally agreed that the essential function of in-service education is to provide education for teachers throughout their professional lives, there is question as to what effective in-service education is or should be. What proves effective in one situation may or may not be effective in another.

Since professional improvement is of high priority to the Arizona State Board of Education, concerted efforts are being made by the in-service education project for home economics teachers to enhance competence in teaching. To facilitate these efforts, it is necessary to seek ways to make optimum use of in-service education resources.

This study was designed to compare the effectiveness of two approaches of in-service education.

CHAPTER II

REVIEW OF LITERATURE

Three areas of literature were reviewed to afford the necessary background for this study. These areas were: (1) the purpose and concerns of in-service education, (2) the implementation of change through in-service education, and (3) the significance of the teaching strategy of role playing for home economics teachers.

In-Service Education

Beliefs and knowledge about in-service education provided the framework for the study. In order to explore the concept of in-service education, literature was reviewed relative to the purpose and concerns of this aspect of education.

Among those who stated that research in the area of in-service education was meager were Harris et al. (1969), Turner (1975), and Bush and Enemark (1975). Reviews of research on in-service education done by Lawrence et al. (1974) and Hutson (1979) concluded that best practices could be identified although hard research was lacking. It was the opinion of a group of international educators that in-service education was "a virtually virgin field" for research and systematic study (Yates, 1970). A criticism

made of the research that had been done was that the findings reported were not generalizable beyond a local population.

Purpose of In-Service Education

The generally stated purpose of in-service education was to provide planned activities in which professional staff members participate for the purpose of instructional improvement. Specific functions credited to in-service education were to: (1) assist in meeting the challenges of rapid, complex changes in the profession; (2) refine or enlarge the scope of existing teaching competencies; (3) remedy preservice inadequacies; and (4) provide a better understanding of research for use in decision making (Cogan, 1975).

The primary task of in-service education, then, was to aid teachers to be more effective in their particular educational settings. Concerns expressed about the realities of in-service education indicated that this task had not been widely achieved (Edelfelt and Lawrence, 1975; Lawrence et al., 1974).

Concerns of In-Service Education

Major concerns related to in-service education stemmed from the three following areas according to Harris et al. (1969): (1) insufficient human and material resources, (2) lack of genuine interest on the part of participants,

and (3) failure to select appropriate methods for implementation.

The use of resources in an effective manner was viewed as of vital importance (Hite, 1977). Because in-service education amassed an infinite number of needs to be met, careful planning based on substantial evidence was considered necessary to reap positive results. Poor use of resources was exemplified by activities which were not of interest to participants and were not scheduled at a time when participants were receptive (Cogan, 1975).

To be interested in an activity, participants had to be committed to its implementation and able to see its relevance to their own situation (Bell, 1975; Nylén and Bradford, 1951). Cochran (1975), O'Keefe (1974), and Bishop (1976) took the position that, if in-service programs were to be successful, it was necessary for teachers to participate in the content selection and in implementation of practices. Pertinent subject matter was rated by teachers as "a most crucial characteristic" of effective in-service workshops in a National Institute of Education (NIE) study reported by Peters and Schnare (1976).

That approaches to in-service education be implemented in a manner acceptable to the participants was seen as imperative. These approaches should rationally map out directions for achieving objectives and be flexible enough to achieve objectives by an alternate route if necessary

(Bishop, 1976). According to Jackson (1971), change in teaching practices did not necessarily follow the teacher's participation in the various combinations of group and individual in-service procedures which were used. Methods of presentation, timing, and location as well as the topic of the activity appeared to be determinants of success or failure of in-service education programs.

Educators seemed to be in agreement that effective in-service education was vital to continuing teacher effectiveness in the classroom. Concerns about in-service education centered around questions regarding the effectiveness of various means of implementing the change process designed to reach the objectives of in-service education.

Implementation of Change Through In-Service Education

Topics to be reviewed in relation to implementation of change through in-service education are: (1) the change process as it relates to in-service education, (2) the implementation of change through use of the Concerns-Based Adoption Model (CBAM) (Hall, 1974), and (3) teaching strategies as they relate to change.

The Change Process in Relation to In-Service Education

Change is a process of giving a different position, course, or direction to something; it is a process which a person experiences in an individual way. Harris et al.

(1969, p. 17) related change and in-service education very simply: "The intent of in-service education is to change instructional practices or conditions by changing people." Inasmuch as teaching behavior can only be changed by the teacher (Allen, 1968), in-service education has the responsibility to furnish the stimuli for teachers to initiate changes.

The characteristics of the change process in educational settings were identified by Chin and Benne (1969), Rogers (1962), and Trager and Radke (1951). To effectively implement change, the following were viewed as necessary components: (1) persons involved need to be participants, not recipients, in the process; (2) participants must be considered as individuals; (3) the change agent must deal effectively with the human aspects of change; and (4) sufficient time must be allowed for the change process to happen.

Harris et al. (1969, p. 28) stated that ". . . in-service development is the most fundamental of the change processes, since it is concerned directly with the individual, is aimed at some change in his knowledge and behavior, and can affect his willingness to accept the change." Participation of the individual in the change process was considered essential. Teacher participation was to allow for understanding of the process and the rationale for change and acceptance of individual

responsibility for its implementation (Allen, 1968; Bell, 1975; Flanders, 1963).

Participants brought to a change situation a variety of experiences, personality characteristics, abilities, and attitudes. All of these had bearing upon the individual's readiness and capacity to change (Trager and Radke, 1951). In-service planners need to recognize and anticipate different responses from participants. Programs, if they are to result in change, must be designed to accommodate individual differences.

According to Hull (1975), characteristics of the innovation and personnel involved were critical to acceptance of change. Participants needed a supportive, accepting situation in which to adopt an innovation. Mutual trust and concern in the personal interaction of participants and change agent tended to provide a climate in which change could take place effectively.

Considering that change is a process occurring over time rather than at one point in time (Hall et al., 1975), in-service education ought to occur over time, allowing for differences in teachers and differences in the settings in which they work. "One shot" in-service activities according to Lawrence et al. (1974) raised teachers' awareness but had little chance of effecting change.

A systematic approach which included the four above conditions believed to be associated with effective

implementation of change was needed. In reviewing the literature, the Concerns-Based Adoption Model (CBAM) appeared to meet the conditions stated.

Concerns-Based Adoption Model (CBAM)

CBAM was designed specifically for in-service teacher education. Based on the continuous change approach, research had been conducted with pre- and in-service teachers. CBAM was developed in an effort to induce change in teachers' performance by relating in-service teacher education to the concerns of teachers. Major researchers in the area of teacher concerns and CBAM were Fuller, Hall, George, and Rutherford.

Over a span of several years, research activity dealing with teacher concerns has been in progress. Fuller's (1969, 1970) research dealt with teacher concerns categorized as to concern with self, concern with adequacy, and concern with pupils. The stages of teachers' concerns as observed in preservice situations ($n = 50$) were studied and refined in relation to in-service (Fuller, 1969).

Expanding upon Fuller's research, CBAM was designed to approach change from two points of view: (1) that of the stages of concern by the individual making the change and (2) that of the levels of use by the individual making the change (Hall, Wallace, and Dossett, 1973; Rutherford, 1977; Hall, 1978). Hall et al. (1973) stated that CBAM had been

developed for two purposes: assisting others who engage in the process of innovation adaption and providing a basis for empirical investigation of the process.

The stages of concern dimension of the CBAM dealt with the teachers' needs, motivations, and problems as they became expert in using the innovation. Identified stages of concern and expressions which could be considered typical of persons with that concern included:

1. Awareness: "I am not concerned about the innovation."
2. Informational: "I'm interested . . . tell me more about it."
3. Personal: "How will it affect me? How will it affect my teaching style?"
4. Management: "How much time will the innovation take? How can I manage my time to better advantage using the innovation?"
5. Consequence: "How does this innovation affect my students?"
6. Collaboration: "How can I use the innovation to complement what other teachers are doing?"
7. Refocusing: "This is great . . . but I have some ideas about making it even better!"

Follow-up for in-service teachers was designed in relation to their expressed stages of concern. The stages of concern were used to provide both diagnosis and prescription for action.

Further research by Rutherford (1977) used CBAM in a case study approach to explore how concerns of 886 individuals related to the use and non-use of two innovations. Cross-sectional and longitudinal studies confirmed the existence of stages of concern and also confirmed that a user of an innovation might have concerns in more than one stage at a time (Hall, George, and Rutherford, 1977).

In Hall's (1978, pp. 33-34) summary of a decade of research with the CBAM in in-service teacher education, four key principles for implementing change were stated:

1. Consider the individual as well as the technology of the innovation. It is as important to consider what the change means to the person as to attend to the mechanics of implementation.
2. Expect individuals to have personal concerns during the change process. Personal concerns are legitimate and must be attended to before a person can move on to management concerns.
3. Adjust training activities to allow time for implementation. Supportive follow-up during a teacher's effort to become skillful in use of the innovation is an essential part of the model.
4. Expect a lot of hard work in the implementation of an innovation. During implementation, teachers need support, encouragement, and time to internalize the innovation.

Teaching Strategies and Change

To facilitate change in teachers' use of a variety of teaching strategies, Weil and Joyce (1978) developed a series of models of teaching based on the premise that teaching competence is the increasing ability to play the multiple roles of teaching more effectively. This series of models was developed to enhance teaching effectiveness as teachers accepted the challenge to expand their repertoire of teaching strategies. The series is composed of three groups of models based on these chief emphases: social interaction models, information processing models, and personal models. The social interaction models of teaching include the strategies of role playing, jurisprudential, and simulation. Information processing models are concept attainment, advance organizer, and inquiry training. Personal models of teaching in the series are the non-directive and the synectics models.

For each model, a training system was designed to educate teachers to use the models of teaching at pre-service and in-service levels. The format for training was designed for either group sessions or for use by individual teachers.

The training plan for each model in the series was constructed on the same format. All training plans in the series included the following components: describing and understanding the model, viewing the model, planning and

peer teaching, and adapting the model. Activities in the describing and understanding the model component were theory and overview, theory into practice, theory into action, and a theory check-up. Viewing the model included viewing either teaching or a demonstration and analysis of the strategy. Planning and peer teaching included several steps in the process of planning, peer teaching, and analyzing a lesson. Components of adapting the model were curriculum transformation, long term uses, and combining the model with other models of teaching.

The system for educating teachers in use of the models of teaching was field tested by a number of pre-service and in-service teachers. Several universities worked with the authors to develop and test training ideas. The National Teacher Corps and National Education Association piloted the training of teachers ($n = 200$) based on procedures used in these models (Weil and Joyce, 1978, pp. ix-x).

The teaching strategy of role playing from the Social Family of Models was selected as the focus of in-depth in-service education approaches used in the study. Interest expressed by teachers, flexibility for use of the model, time for implementation, and opportunities for practicing the strategy were factors in the selection of this model of teaching. Role playing gives opportunities to present opposing or alternative views, rather than

solutions to problems, making it a useful strategy for teaching home economics concepts.

Significance of Role Playing Strategy to Home Economics Teachers

The values of role playing as a teaching strategy were identified as: (1) to promote social and emotional growth of students and (2) to facilitate students' ability to solve problems. Chesler and Fox (1966, p. 15) gave the following description:

Thus role playing can be seen as one technique in the educational process that is directed toward the scientific improvement of classroom learning and social behavior The classroom can provide the opportunities for relating ideas into action, theory to practice.

Inasmuch as home economics subject matter deals with people, their needs and concerns as members of the family and society, role playing has specific advantage of: (1) being able to probe a situation in a safe environment, (2) helping students to identify with the role of others, and (3) serving as vehicle to handle issues through action. Role playing as a teaching strategy deals with social issues from personal to worldwide scope (Zeleny and Gross, 1960) making it applicable to all areas of home economics.

Summary

The conceptual framework selected for the study was beliefs and knowledge about in-service education as expressed by educators. The primary purpose of in-service

education was seen as providing opportunities for individual professional growth to improve instruction. Major challenges in providing in-service education were identified as making judicious use of resources, creating genuine interest among participants, and choosing effective methods of implementation.

Research indicated that any change process involves the participant as an individual and requires time in which to happen. The Concerns-Based Adoption Model was reviewed as a tool for the identification of: (1) states of concern of teachers and (2) levels of use of an innovation. The model was developed for the purpose of assisting people who are adopting an innovation and as a basis for empirical research.

A number of authors stated that role playing as a strategy is particularly applicable to content which deals with social and emotional growth of students and involves problem solving. Since home economics subject matter deals with needs and problems of people, role-playing should be a valuable teaching strategy for the home economics teacher.

CHAPTER III

METHODS AND PROCEDURES

The study was planned as a three group pre- and postevaluation quasi-experimental design. The purpose of this chapter is to describe the procedures and treatments utilized in the study. The chapter is divided into six major sections: (1) overview of chronological steps of the study, (2) the population and the sample, (3) development of instruments, (4) data collection procedures, (5) procedures pertaining to instruction of participants, and (6) procedures pertaining to compilation and analysis of data.

Overview of Chronological Steps of the Study

To present an overview, the steps used in the study are shown in sequence in Figure 1 and are briefly described in the text. The description of each step is numbered to correspond with the number in parentheses in the columns of the figure. A more detailed explanation of these steps will be given in subsequent sections of this chapter. Some steps overlapped or occurred simultaneously with other steps.

The following steps were used in conducting the study:

(1) Pilot Testing of Procedures with Preservice Teachers	SAMPLING PROCEDURE			TREATMENT		
	Selection (3)	Grouping (4)	(5a)	Training Session Approach (6)	(5b)	Individualized Follow-up Approach (7)
	Request for and selec- tion of volunteers for study	Select Group A - - - - Select Group B - - - - Select Group C	Audio Taping in Schools--Pre- evaluation	In-depth training session on use of role playing as a teaching strategy for Groups A & B - - - - - No training session for Group C	Audio Taping in Peer Teaching	Individualized follow-up for Group A - - - - - No follow-up for Groups B or C
(2) Development of Instruments						

Figure 1. Procedures for the Study of Two Approaches to In-Service Edu

CEDURE		TREATMENT				(8) Training of Raters	(9) Scoring of Audio Tapes	(10) Data Treatment	Post Data Collection (11)
Group (4)	(5a)	Training Session Approach (6)	(5b)	Individualized Follow-up Approach (7)	(5c)				
Group A	Audio Taping in Schools--Pre-evaluation	In-depth training session on use of role playing as a teaching strategy for Groups A & B	Audio Taping in Peer Teaching	Individualized follow-up for Group A	Audio Taping in Schools--Post-evaluation				- - - - -
Group B		- - - - -		No follow-up for Groups B or C					Individualized follow-up for Group B
Group C		No training session for Group C							- - - - -
Comments									

for the Study of Two Approaches to In-Service Education

1. Procedures used in the study were pilot tested with preservice teachers.
2. Instruments used in the study were developed by the investigator: rating scale and self-assessment instrument for individualized follow-up.
3. All home economics teachers in southern Arizona were invited by letter (Appendix A) to participate in the study. The sample, composed of those who volunteered, received a consent form (Appendix B) and a demographic data form.
4. Volunteers were grouped as matched triplets according to school size. Participants for Group A and Group B were assigned randomly to the experimental groups. Group C was composed of volunteers who had no training by the investigator.
5. All participants were audiotaped as they used the teaching strategy of role playing.
 - a. All participants were audiotaped in their classrooms prior to group training session to give baseline or preevaluation data.
 - b. Groups A and B were audiotaped in a peer teaching situation during the group training session and the tapes were used to provide a basis for individualized follow-up.
 - c. All participants were again audiotaped in their classrooms. This taping occurred six weeks after

training, followed individualized follow-up for Group A, and preceded individualized follow-up for Group B. Participants in Group C were taped three to five weeks after the first taping.

The tapes from 5a and 5c provided the pre- and postevaluation data for the study.

6. An in-depth group training session based on the model of teaching using role playing as presented by Weil and Joyce (1978) was conducted by the investigator for Groups A and B.
7. In the six weeks after the training session, each teacher in Group A participated in an individualized follow-up program based on the adaptation procedures as presented by Weil and Joyce (1978) and the CBAM (Concerns Based Adoption Model) for adoption of innovation.
8. Using tapes of role playing done by teachers who were not participants in the study, three raters were trained to use a rating scale for role playing developed by the investigator (Appendix C).
9. After being assigned code numbers, audiotapes from 5a, preevaluation and 5c, postevaluation were scored by the three trained raters.
10. Data were statistically analyzed to determine change in level of performance of teachers.

11. After all data were collected for the study, teachers in Group B received individualized follow-up and teachers in Group C were offered instruction on the teaching strategy of role playing.

The Population and the Sample

Approximately 180 home economics teachers employed in the junior high schools and high schools of the eight southern counties of Arizona were requested by mail to participate in an in-depth study of the teaching strategy of role playing as an activity of the in-service teacher education project. The invitation to participate in the in-depth study described the plan of action, indicated that the study could be completed for credit or not, outlined what was expected of the participants, and what the participants could expect of project personnel (Appendix A). As teacher educator of the project, the investigator received favorable responses from 23 teachers. Twelve other teachers expressed interest but indicated that they were unable to participate.

After teachers indicated a willingness to participate in the in-depth study, they were contacted by phone to explain the research component of the study. Those who volunteered received: (1) a Human Subjects Consent form (Appendix B) which outlined their rights as volunteer participants and indicated that the time involvement in the

in-depth study would be approximately 45 hours and (2) a demographic data form to be completed and returned to the investigator.

Placement of Participants into Groups

The twenty-three teachers who volunteered to participate in the in-depth study were asked to: (1) tape a role playing session before training to assess existent skill in use of the strategy, (2) complete a reading assignment, (3) attend an in-depth training session, (4) participate in individualized follow-up, and (5) plan, teach, and tape a lesson using the strategy of role playing in the classroom. Eighteen completed these requirements and became the experimental groups in the sample population of the study. The 12 interested teachers who were unable to take part in the in-depth study of role playing were asked to participate as part of this study by taping two classroom sessions in which they used the strategy of role playing. The tapes were to be made three to five weeks apart. These teachers received no training from the investigator. Of this group, nine teachers completed the two tapings and became the control teachers in the sample population.

Matching Participants in the Sample

In order to minimize variables in the teaching situations of the participants, matching was done on the basis of student body size. Student body size was selected

as the variable on which to match participants because of the assumption that schools with populations of similar size in southern Arizona would present similar teaching situations.

The student count in schools of participants of the study varied from 74 to 2,386 when the study was initiated. Assignments to matched groups were made on the basis of these student counts. Each matched triplet group contained two teachers who participated in the training session with the investigator and one teacher who received no training from the investigator. The two teachers who were to receive training were randomly assigned to experimental Group A or Group B. The teacher receiving no training was assigned to the control Group C. The two teachers in the experimental groups with the smallest number of students in the student body were matched with the teacher in the control group with the smallest number of students in the student body. This process of making the best possible match was continued until nine matched sets of triplets were completed. The number of students in each participant's school and that participant's placement in the group are shown in Table 1. The participants in the experimental groups were more evenly distributed from small schools to large schools than were the participants in the control group.

Table 1. Number of Students in the Schools of Participants
in Each Matched Triplet

	Experimental Groups		Control Group Group C
	Group A Training Plus Follow-Up	Group B Training Only	
Triplet 1	250	74	182
Triplet 2	325	230	238
Triplet 3	650	600	350
Triplet 4	920	1132	370
Triplet 5	1500	1743	479
Triplet 6	1800	1743	568
Triplet 7	2100	1743	650
Triplet 8	2386	2017	850
Triplet 9	2386	2200	1550

Development of Instruments

To secure information with which to assess changes in level of participants' performance of the teaching strategy of role playing, a rating scale and a self-assessment instrument to facilitate individualized follow-up were developed by the investigator.

The Rating Scale

The teaching analysis guide developed by Weil and Joyce (1978, pp. 62-65) for the teaching strategy of role playing was used as an example for the development of the rating scale used in this study. The guide contained the essential components of each phase of the role playing strategy and a four item Likert-type scoring scale for each component. Descriptors used in the teaching analysis guide were: thoroughly, partially, missing, and not needed. The device was used by preservice teachers and the investigator to rate taped performances of the role playing strategy. The ratings made using the teaching analysis guide were found to lack sufficient discrimination to indicate variations in range of performance.

A search of the literature showed that use of rating scales in research on teaching is widespread because of the complexity of the variables involved. In order to deal with this complexity, a human observer records messages

about a person's behavior or characteristics using some type of a rating scale.

Rating scales are designed precisely to define behaviors on a continuum so that the rater can readily identify behavior that best describes the person in a given situation. Guidelines for developing descriptive levels used in a rating scale were discussed by Cross (1973). Each descriptor should be: (1) designed to rate one characteristic, (2) precise and concise, (3) grammatically consistent, (4) written in same manner (such as positively or negatively), and (5) arranged in logical fashion. A well designed rating scale will contribute to rater consistency.

Based on these theories, the investigator developed a rating scale (Appendix C) using the essential components of the strategy as criteria and scoring device composed of a Likert-type scale of 1 to 5 with descriptions of performance at levels 1, 3, and 5. In order to confirm that persons using these criterion statements and descriptors would score the performance of teachers in a similar manner, teacher educators, preservice teachers, and the investigator rated tapes of role playing sessions on a number of occasions. Ratings were discussed and changes in wording were made to make the meaning of each criterion statement and descriptor explicit and concise. This instrument was used in the training of participants and raters and in the

rating of participants' performance of the teaching strategy of role playing.

Self-Assessment Instrument for Individualized Follow-up

The stages of concern as presented in the Concerns-Based Adoption Model (CBAM) developed by Hall et al. (1973) were used to identify teacher concerns as they worked toward making the changes involved in implementation of the teaching strategy of role playing. These stages of concern served as a basis for the development of a self-assessment instrument for the selection of individualized follow-up procedures. The purpose of the instrument was to identify the participant's area(s) of concern about the strategy and to identify possible follow-up activities which would help the participant deal with the concern(s). The instrument (Appendix D) was utilized by teachers and the investigator to plan activities to facilitate adoption of the teaching strategy of role playing as presented by Weil and Joyce (1978).

Data Collection Procedures

Data were collected for the purpose of statistical analysis and subjective evaluation. The procedures used for collecting data are described in this section.

Data Collection for Statistical Analysis

Data used in the statistical analysis processes were secured from audiotapes. Data collection by audiotaping of participants' performance of the strategy of role playing was selected on the basis of acceptance of participants and use of available resources. Ratings of teachers' performance of the strategy were based on verbal communication supplied by audiotapes.

For participating teachers and students, audio-taping was observed to be a less threatening data collection technique than videotaping. Audiotaping caused little or no disruption in classes. During evaluation of tapes, raters found some difficulty in determining which students were making contributions; videotaped classroom sessions would have made this more easily discernible.

Effective use of available resources was a positive factor in the selection of audiotaping as the data collection method. Audiotaping equipment was available in most schools, easily operated and transported. Participants were furnished with taping instructions. This allowed teachers to tape at their convenience and did not necessitate on-site data collection by the investigator. The cost of cassette tapes was minimal in comparison to the cost of videotapes.

Tapings included the complete segment of the classroom session in which the strategy of role playing was used.

The tapes began with the teacher's introduction of the lesson using role playing and were concluded when the class was ready to begin a new activity. This procedure documented the teacher's entire performance of the role playing strategy. The preevaluation taping was completed before any training procedures were begun in order to assess existent skill in use of the strategy. The postevaluation taping was completed after individualized follow-up for experimental Group A, before follow-up for Group B, and three to five weeks after the pretaping for Group C.

Data Collection for Subjective Evaluation

Written data used for subjective evaluation included a demographic data form and a subjective evaluation of the training session. The demographic data forms were mailed to volunteers at the onset of the study. Each in-depth training session participant completed an evaluation at the close of the session.

Verbal data collected by the investigator included teachers' anecdotes related to the use of the strategy of role playing. Successes, failures, problems, and satisfactions were shared during follow-up sessions. This information was compiled and shared with all participants.

Procedures Pertaining to Instruction of Participants

Instructional procedures used to increase participants' knowledge and skill concerning the use of the teaching strategy of role playing included: (1) a reading assignment, (2) an in-depth training session, and (3) individualized follow-up. Participants in the experimental groups completed these procedures.

The Reading Assignment

After participants were audiotaped to assess existent skill in using role playing as a teaching strategy, readings from Weil and Joyce (1978, pp. 25-27, 32-54) were assigned to provide all participants of the in-depth training session with a common base of knowledge about the strategy of role playing.

The In-Depth Training Session

The training session was based on role playing as a teaching strategy as presented by Weil and Joyce (1978), information on role playing from Shaftel and Shaftel (1967), Chesler and Fox (1966), and the CBAM (Hall et al., 1973). The six-hour training session provided time for in-depth study of the strategy.

Instruction and interaction at the training session included the following activities:

Review of Reading Materials. The participants and investigator discussed content of the reading assignment, problems and concerns which needed clarification, and how the teachers felt about using the strategy.

Demonstration and Analysis of the Teacher Strategy. The group reviewed a videotaped demonstration of role playing prepared by the investigator. Following viewing, the group analyzed the demonstration using the rating scale (Appendix C). The demonstration gave the participants the advantage of seeing the strategy in use and of discussing the use of Weil and Joyce's (1978) nine phases of the role playing strategy. The analysis provided participants with the opportunity to familiarize themselves with the criterion-referenced rating scale and its use.

Discussion of Translating Theory into Practice. With the background provided by the reading assignment and the demonstration and analysis of a role playing session, the participants and investigator explored the practical aspects of planning and implementing role playing sessions in the classroom. This discussion included a total group session and small group sessions working on developing two foci for role playing with a given concept in classrooms.

Planning a Peer Teaching Lesson Using Role Playing. Each participant selected a concept and planned a 10 minute

lesson using the strategy of role playing. This lesson was planned to teach the concept to a group of peers.

Peer Teaching and Analysis. Participants were divided into groups of four plus a facilitator who was a home economics teacher educator. The facilitator organized the group and audiotaped each teacher's performance. Each participant taught the lesson she had planned to three peers. Preparation and presentation of a lesson for peers provided participants the opportunity to practice the strategy utilizing Weil and Joyce's (1978) phases. Some of the peer teaching tapes were reviewed and analyzed by participants using the rating scale. The tape recorder was stopped whenever a participant indicated that she wished to discuss a particular phase. The peer teaching and analysis was designed to help the teachers to see strengths, limitations, and a variety of ways to use the role playing strategy.

Planning Individualized Follow-up. On the basis of study, discussion, observation, and planning and presenting a lesson using the role playing strategy, participants assessed their follow-up needs using the self assessment instrument (Appendix D).

Evaluating the Session. A subjective evaluation of the in-depth training session was completed by all session

participants. This evaluation provided information about teachers' perceptions of the acceptability of the in-depth approach and input on which to base future in-service activity plans.

Individualized Follow-up

Selection and implementation of individualized follow-up activities were based on the stages of concern as developed by Hall et al. (1973) in their research on CBAM. Individualized follow-up activities were completed for Group A within six weeks after training and before the post-evaluation taping was done. Follow-up activities for Group B were completed after postevaluation taping was done.

Using the participant's self-assessment instrument as a starting point, individualized follow-up was designed jointly by each participant and the investigator.

Activities included:

References for Further Study of the Strategy. The seven teachers who chose this follow-up activity selected materials from a list of references (Appendix E) prepared by the investigator and ones secured from other sources. The listed references concerning use of role playing as a strategy, situations, satisfactions and/or problems in using the strategy, and the role of the teacher in a role playing session were available on loan from the investigator.

Consultation with Investigator. Consultation activities were based on needs and concerns as perceived by the twelve participants who chose this method. Viewing of a role playing session and/or reviewing a taping with the participant served as vehicles for identifying strengths and weaknesses in performance of the strategy. Using the rating scale, comparison of teacher's self evaluation and investigator's evaluation of performance was another activity for assessing the teacher's use of the strategy. These activities served as springboards for further study and refinement of the use of the strategy.

Interaction Sessions with Other Participants. The fourteen participants who identified the sharing of concerns, successes, and problems as a follow-up activity attended interaction sessions. The one and one-half hour sessions were set up for groups of six to eight teachers with similar concerns. Interaction provided opportunity to share successes, discuss problems and possible solutions, and encourage the use of the strategy.

Sharing Role Playing Situations. Since preparation of role playing situations is time consuming, each teacher participating in the study agreed to pool efforts by writing ten role playing situations dealing with concepts taught in home economics. Some participants also shared and exchanged role playing situations with teachers from other disciplines.

Teaching Others to Use the Strategy. Five participants of the study identified the process of teaching others to use the role playing strategy as a follow-up activity. After further study and practice in using role playing, these participants taught student groups, other home economics teachers, and teachers from other disciplines to use role playing as a teaching strategy. The activity was designed to strengthen the participants' performance and confidence in using the strategy.

Procedures Pertaining to Examination and Analysis of Data

Procedures used in the examination and analysis of data were: (1) the training of raters, (2) rating of participants' performance of the teaching strategy, and (3) the analysis of the data.

The Training of Raters

The development of rater consistency was essential to the study. Individuals vary in their ability to become reliable observers causing interrater reliability to fluctuate (Flanders, 1966). Systematic training of raters increases rater reliability (Bales, 1950).

As described in the literature, procedures used in the training of raters to reach substantial agreement were: (1) familiarization of rater with situation and instruments to be used; (2) instruments studied by rater; (3) observations done simultaneously by rater and trainer, then scoring

cooperatively analyzed; (4) further simultaneous practice sessions done by rater and trainer; and (5) observations of situation done at different times by rater and trainer, then scoring cooperatively analyzed (Ryans, 1960, p. 93).

According to Flanders (1966, p. 12), consistency in rating required group training, discussion of ground rules, each rater's understanding of own biases, and regular sessions to discuss unusual rating problems.

Based on the above principles, raters were trained to use the investigator-developed rating scale. They practiced the use of the scale as they listened to tapes of teachers not in the study utilizing role playing as a teaching strategy. After the rating of each tape, an experienced teacher educator, the raters, and the investigator discussed each rating, giving reasons for selection of that particular rating. These practice sessions were designed to develop expertise in use of the rating scale, foster the development of a common meaning for each descriptor as used by the raters, and to increase interrater consistency in scoring.

Rating Participants' Performance of the Teaching Strategy

Three trained raters assessed the level of participants' performance of the teaching strategy, role playing, by using the criterion-referenced rating scale developed by the investigator.

Each rater was assigned to rate tapes produced by three sets of participants placed in matched triplet groupings. Each rater evaluated both the preevaluation taping and postevaluation taping of the assigned participants. This arrangement gave balance to the number of teachers from each group rated by a particular rater and provided intra-rater consistency in that both pre- and posttapes for each participant were rated by the same rater. This procedure was used because ratings tend to be limited by characteristics of the human rater (Remmers, 1963). Each rater was given eighteen tapes and rating scales. These tapes, preevaluation and postevaluation tapings from nine teachers (three from Group A, three from Group B, and three from Group C), were marked only with code numbers. Tapes were rated in the order in which each tape was pulled randomly from the pool of tapes assigned to the rater. Each rating scale was marked to correspond to the code number on the tape.

After completion of the rating process, pre- and postevaluation scores on each item on the rating scale for each participating teacher were recorded for use in statistical analysis. Tapes and rating scales were destroyed after compilation of data.

Analysis of Data

Pre- and postevaluation scores for each participant on 22 items of the rating scale were utilized for computer analysis, using the Statistical Program for Social Sciences. The rating scale (Appendix C) was composed of a total of 33 items: 5 items on the written plan and 28 items on the nine phases of role playing. Scores on items concerning the written plan (items 1 through 5) and items concerning the reenactment and discussion of reenactment phases of role playing (items 25 through 30) were not compared due to insufficient data.

A one-way analysis of variance at the .05 level of significance was used to compare Group A (in-depth training plus individualized follow-up group), Group B (in-depth training only group), and Group C (no training group). Groups were compared as to: (1) totals on 22 items on the rating scale, (2) seven phases of the teaching strategy, and (3) each of the 22 individual items. If significance was shown at the .05 level, an ad hoc procedure, the Student-Newman Keuhl test, was used to compare means.

Subjective data were compiled and reviewed to: (1) secure information upon which to base training procedures; (2) informally assess teachers' attitudes toward the use of the strategy of role playing; and (3) acquire feedback concerning successes, failures, and spinoffs as perceived by

participants. This information was shared with all participants.

Summary

Twenty-seven volunteers from a population of 180 home economics teachers in southern Arizona participated in the study. Eighteen of these participants received training from the investigator in the use of role playing as a teaching strategy. From the group of eighteen, nine participated in an in-service education approach of an in-depth training session plus individualized follow-up and nine participated in the in-depth training session only. Nine others received no training from the investigator. Data to compare performances of the teachers' use of the strategy were collected by audiotaping participants as they utilized role playing in the classroom.

CHAPTER IV

FINDINGS

This chapter presents the findings of the study in two sections: (1) statistical data and analysis and (2) descriptive data and subjective evaluation. The first section deals with the statistical data related to the two null hypotheses as stated in Chapter I. The second section deals with information gained from participants' statements concerning the in-depth study of the strategy of role playing.

Statistical Data

The statistical data will be dealt with in relation to each hypothesis.

Hypothesis 1: There will be no significant difference in change in level of performance of the teaching strategy of role playing between home economics teachers who receive in-depth training from the investigator and those who receive no training from the investigator.

Changes in level of performance of the teaching strategy of role playing by teachers participating in the study were compared by analysis of variance. Comparison of total groups showed that changes in level of performance between teachers who received in-depth training and teachers

who did not receive training were significantly different (probability $\leq .001$) as shown in Table 2. Due to the level of significance, the Student-Newman-Keuhl test to compare means was calculated and the results appear in Table 3.

Differences between pretreatment and posttreatment scores of teachers participating in the in-depth study of the teaching strategy were compared with pre- and postscores of teachers in the no-treatment group. Group means showed Groups A and B, the two in-depth study groups, to be similar with Group C, the no-treatment group, having a lower mean score (see Table 4).

Additional information was gained from analyzing the data by comparing group scores on each phase of the role playing strategy and each individual item on the rating scale.

Table 5 shows group means and the F probability for each phase of the teaching strategy. Phases 7 and 8, reenactment and discussion, were not used in the analyses because a large number of participants did not do these phases resulting in missing data. For phases 1, 2, and 4, warm-up, selecting players, and preparing observers, significant difference in change in level of performance is indicated. Phases 3, 4, 6, and 9, setting the stage, enactment, discussion, and sharing and generalizing, showed no significant difference among the three groups. Comparison of group means and the F probability for each item on

Table 2. Analysis of Variance for Changes in Level of Performance of Participants Between Total Groups (n = 27)

Source	DF	Mean Squares	F Ratio	F Prob.
Between Groups	2	2688.1111	9.3902	.0010
Within Groups	24	286.2685		

Table 3. Comparisons of Means Using the Student-Newman-Keuhl Test for Changes in Level of Performance of Participants Between Total Groups (n = 27)

	Group B	Group C
Group A (Training Plus Follow-up)	-12.2226	+21.8888
Group B (Training only)		+34.1111

Table 4. Means and Standard Deviations for Change in Level of Performance of Participants Between Total Groups (n = 27)

Group	Number of Cases	Mean	Standard Deviation
A	9	22.4444	± 21.5355
B	9	34.6667	± 16.7481
C	9	.5556	± 10.7018

Table 5. Means and F Probabilities for By-Phase Change in Level of Performance of Participants Between Groups (n = 27)

Phase	Group A ^a Mean	Group B ^a Mean	Group C ^a Mean	DF	F Prob.
1 (Warm-up)	8.4444	9.1111	-1.5556	2	.0057*
2 (Selecting Players)	2.8889	5.8889	0	2	.0050*
3 (Setting the Stage)	2.444	2.444	-.2222	2	.1045
4 (Preparing Observers)	2.0000	5.1111	-.4444	2	.0028*
5 (Enactment	.5556	1.7778	-.2222	2	.0517
6 (Discussion)	4.1111	6.1111	.4444	2	.1172
7 (Reenactment)	-----no analysis due to missing data-----				
8 (Discussion)	-----no analysis due to missing data-----				
9 (Sharing and Generalizing)	2.0000	4.2222	2.5556	2	.4315

^an = 9 in all groups. Group A = in-depth training plus followup group; Group B = in-depth training only; Group C = control group.

*p < .01.

the rating scale is shown in Table 6. Items 1 through 5 and 25 through 30 did not receive by-item analysis due to missing data. Items 1 through 5 required the participant to submit a written lesson plan. From the total of 27 teachers, one teacher submitted lesson plans for both pre- and postevaluation. Items 25 through 30 dealt with reenactment and discussion of the reenactment; 2 of 27 teachers did these phases for both pre- and postevaluation. Original data are presented in Appendix F. Nine of the 22 items which were analyzed showed significant difference in change. Thirteen items showed no significant difference in change.

These findings showed that teachers who received in-depth training changed in level of performance on the teaching strategy of role playing in a way significantly different from teachers who received no training. Using a scale of 1 to 5 (1 being lowest possible competency to 5 being highest possible competency), an average gain of 1.338 points for teachers with training as compared to a gain of .020 points for teachers without training was shown (Appendix G). In other words, the teachers who received training had a 33% gain in competence as compared to .5% gain in competence for teachers without training. Null Hypothesis 1 can be clearly rejected. In-depth training did make a positive significant difference.

Table 6. Means and F Probability for By-Item Change in Level of Performance of Participants Between Groups (n = 27)

Item	Group A ^a Mean	Group B ^a Mean	Group C ^a Mean	DF	F Prob.
1- 5	-----no analysis due to missing data-----				
6	1.8889	2.3333	0	2	.0493*
7	1.4444	1.2222	-.2222	2	.0930
8	1.2222	1.5556	-.4444	2	.0837
9	1.3333	.8889	-.2222	2	.0490*
10	.7778	1.6667	-.5556	2	.0097**
11	1.7778	1.4444	-.1111	2	.0767
12	1.2222	1.8889	.2222	2	.1288
13	1.2222	1.5556	.2222	2	.1948
14	.4444	2.4444	-.4444	2	.0008***
15	1.2222	1.8889	-.1111	2	.0412*
16	1.2222	.5556	-.1111	2	.2761
17	1.2222	2.0000	0	2	.0201*
18	.7778	3.0000	-.4444	2	.0018**
19	.6667	.7778	-.3333	2	.0286*
20	-.1111	1.0000	.1111	2	.0747
21	1.2222	1.8889	.6667	2	.3808
22	1.4444	1.6667	-.2222	2	.0320*
23	.2222	1.2222	-.1111	2	.2647
24	1.2222	1.3333	.1111	2	.3441
25-30	-----no analysis due to missing data-----				
31	.8889	1.2222	.4444	2	.4737
32	.2222	1.8889	1.2222	2	.0540
33	.8889	1.1111	.8889	2	.9349

^an = 9 in all groups. Group A = in-depth training plus followup group; Group B = in-depth training only; Group C = control group.

*p < .05.

**p < .01.

***p < .001.

Hypothesis 2: There will be no significant difference in change in level of performance of the teaching strategy of role playing between home economics teachers who participate in an in-depth group training session plus individualized follow-up and those who participate only in the in-depth group training session.

Changes in level of performance of the teaching strategy of role playing between teachers participating in the two experimental groups were compared by analysis of variance. Comparison of total groups indicated that differences in level of performance of the teaching strategy by teachers with in-depth training plus follow-up and teachers with in-depth training only were not significantly different (probability .1977) as presented in Table 7.

Table 7. Analysis of Variance for Changes in Level of Performance of Participants Between Treatment Groups (n = 18)

Source	DF	Mean Squares	F Ratio	F Prob.
Between Groups	1	672.222	1.8064	.1977

Changes in level of performance of the teaching strategy as measured by comparison of preevaluation scores and postevaluation scores were examined. Group means, as shown in Table 3, revealed that Group A was not significantly different from Group B.

Comparison of changes in level of performance on each phase of the teaching strategy and each item of the rating scale were computed for the two experimental groups. Table 8 shows group means and the F probability for each phase of the role playing strategy. Phases 7 and 8 were not analyzed because only 2 of the 18 participating teachers used these phases in both the pre- and postevaluation tapes. Univariate analysis determined no significant difference between pretreatment and posttreatment data using by-phase comparisons. By-item analysis of the change in level of performance of participants of the experimental groups is presented in Table 9. Group means and F probabilities of each of the 22 items compared showed no significant difference in 18 items. Four items showed negative significant difference.

These findings revealed that the teachers who participated in in-depth training plus follow-up did not change in performing the strategy of role playing significantly differently from those teachers who participated in in-depth training only. Using a scale of 1 to 5 (1 being lowest competency to 5 being highest competency) an average

Table 8. By-Phase Change in Level of Performance of
Participants of Experimental Groups (n = 18)

Phase	Group A ^a Mean	Group B ^a Mean	DF	F Prob.
1 Warm-up	8.4444	9.1111	1	.8638
2 Selecting Players	2.8889	5.8889	1	.0950
3 Setting the Stage	2.4444	2.4444	1	1.0000
4 Preparing Observers	2.0000	5.1111	1	.0796
5 Enactment	.5556	1.7778	1	.1282
6 Discussion	4.1111	6.1111	1	.4516
7 Reenactment	--no analysis due to missing data--			
8 Discussion	--no analysis due to missing data--			
9 Sharing and Generalization	2.0000	4.2222	1	.2006

^aGroup A = in-depth training plus followup group;
Group B = in-depth training only; Group C = control group.

Table 9. By-Item Change in Level of Performance of
Participants in Experimental Groups (n = 18)

Item	Group A ^a Mean	Group B ^a Mean	DF	F Prob.
1- 5	-----no analysis due to missing data-----			
6	1.8889	2.3333	1	.6688
7	1.4444	1.2222	1	.8163
8	1.2222	1.5556	1	.7495
9	1.3333	.8889	1	.5434
10	.7778	1.6667	1	.2362
11	1.7778	1.4444	1	.6878
12	1.2222	1.8889	1	.4700
13	1.2222	1.5556	1	.7099
14	.4444	2.4444	1	.0007**
15	1.2222	1.8889	1	.4187
16	1.2222	.5556	1	.4598
17	1.2222	2.0000	1	.3427
18	.7778	3.1111	1	.0293*
19	.6667	.7778	1	.8012
20	-.1111	1.0000	1	.0265*
21	1.2222	1.8889	1	.4700
22	1.4444	1.6667	1	.7067
23	.2222	1.2222	1	.2436
24	1.2222	1.3333	1	.9138
25-30	-----no analysis due to missing data-----			
31	.8889	1.2222	1	.5195
32	.2222	1.8889	1	.0245*
33	.8889	1.1111	1	.7630

^an = 9. Group A = in-depth training plus followup group; Group B = in-depth training only; Group C = control group.

*p < .05.

**p < .001.

gain of .921 points for teachers with in-depth training plus follow-up as compared to an average gain of 1.756 points for teachers with in-depth training only was shown (Appendix G). Null Hypothesis 2 must be retained.

In summary, statistical analysis showed significant difference in change in performance between home economics teachers who received in-depth training in the use of the teaching strategy of role playing and those teachers who received no training. No significant difference in change in performance was revealed between teachers who received in-depth training plus individualized follow-up and those who received in-depth training only. These findings indicate statistically that, for this particular group of teachers, in-depth training was definitely effective in improving competence but that individualized follow-up did not result in greater improvement.

Descriptive Data and Subjective Evaluation

Descriptive data were collected from participants concerning the in-depth study of the teaching strategy of role playing. A short demographic data survey, a subjective evaluation of the in-depth training session, and recorded anecdotes as reported by participants contributed information which aided in the implementation of study procedures as well as giving subjective evaluative data.

Demographic data revealed wide variation in education of the participants and in their use of role playing as a teaching strategy. Participants ranged in educational background from those with bachelor of science degrees to those with masters' degrees plus additional course work. Seventeen of the group of 27 teachers had at least a master's degree. Years of teaching home economics ranged from 1 to 30 years; average number of years in the profession was 11. Five participants reported that they used role playing as a teaching strategy as frequently as 3 to 5 times per semester and 13 stated that they used the strategy as infrequently as once a year. Eleven indicated that they had received some instruction in role playing; sixteen had never had instruction in the use of the strategy. Fifteen of the 18 teachers who received in-depth training registered for graduate credit. These data indicated that the group could be generally characterized as an experienced group of teachers committed to continuing professional growth. Role playing had not been a frequently used teaching strategy.

A brief subjective evaluation of the in-depth training session was completed by the participants at the close of the session. Twenty teachers completed the anonymous evaluation of the training session; eighteen teachers completed all the requirements for participating in the study. The question "Would you attend another

session similar to this one . . . say one on another teaching strategy?" was asked. One hundred per cent of the teachers participating in the in-depth training session responded positively to the question.

Anecdotes from participants included successes, failures, ideas for implementation of the role playing strategy, and ways to improve teaching performance. One teacher reported results of a role playing session with a "good" class which were mediocre and results with a "more difficult" class which were excellent; these incidents furnished this teacher the impetus to continue working with the strategy to provide exciting learning experiences for all students. Another teacher related that, after explaining that she was learning a new teaching strategy, her students were positive and cooperative which provided a good learning situation for all. Several teachers reported using role playing to involve students in working out classroom management problems. Several teachers stated that they had to practice the summarizer role because it was a teacher role which they did not often use. From the use of the role playing strategy teachers reported realizing a number of spin-offs which affected their performance of other teaching strategies such as improved questioning skills, more effective means of teaching students to think critically, and lengthening the time allowed by the teacher for student responses to questions or statements.

A complete compilation of suggestions and spin-offs was shared with the participants (see Appendix H). Anecdotes gave evidence that participants viewed their use of the strategy in the classroom with varying degrees of success.

Summary

In summary, statistical analyses showed significant change in level of performance of teachers trained in the use of the teaching strategy of role playing as compared to teachers who did not receive training. No significant difference in change in level of performance was shown when teachers who received in-depth training plus individualized follow-up were compared with teachers who received in-depth training only.

Subjective evaluation of the in-depth training session on role playing was positive. Anecdotal records revealed that teachers perceived use of the role playing strategy as beneficial to them and to their students.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study examined changes in level of performance of a teaching strategy used by home economics teachers who participated in two approaches to in-service education. A summary of the research, conclusions, and recommendations will be presented in sequence.

Summary

The purpose of in-service education has been viewed as providing stimulus and assistance to teachers in meeting the challenges of education in today's rapidly changing society. The fulfillment of this purpose requires that in-service education be career-long, continuous, and effective. The question of what effective in-service education is has not been clearly established.

The Problem

The study was designed to begin a systematic search for information regarding the effectiveness of various approaches to in-service education. Such information was seen as necessary for making decisions concerning practices in in-service education. This study attempted to determine:

1. If change in level of performance would differ between home economics teachers who received in-depth training in the teaching strategy of role playing and those teachers who received no training.
2. If change in level of performance would differ between home economics teachers who received in-depth training plus individualized follow-up and those teachers who received in-depth training only.

Procedures Used

Participants in the study were volunteer home economics teachers from southern Arizona. All participants were audiotaped in a classroom session to assess existent skill in the teaching strategy of role playing. Participants in two experimental groups completed a reading assignment and a six-hour in-depth training session. After the in-depth training, one experimental group received individualized follow-up before postevaluation audiotaping; one experimental group received follow-up after the post-evaluation audiotaping. Three to five weeks elapsed between pre- and postevaluation audiotaping for the control group teachers who received neither training nor follow-up. Using a criterion-referenced rating scale developed by the investigator, pre- and postevaluation audiotapes were scored

by trained raters to assess change in level of teachers' performance of the strategy of role playing.

Additional data collected from the participants included demographic data, subjective evaluations of the in-depth training session, and anecdotes about experiences using role playing. All participants of the study supplied demographic data. All in-depth workshop participants completed an evaluation of the session. Anecdotes reported by participants to the investigator included successes, failures, situations, and spin-offs. These data were used to implement the study and to give feedback on the use of the strategy to all participants.

Findings

Statistical analyses consisted of univariate analyses of variance and the Student-Neuman-Keuhl test. These procedures revealed that there was significant difference ($p \leq .001$) in change in level of performance of the teaching strategy of role playing by home economics teachers who received in-depth training as compared to those teachers who received no training. There was no significant difference in change in level of performance of the teaching strategy by teachers who received in-depth training plus follow-up as compared to teachers who received in-depth training only. The subjective evaluation of the in-depth training session was positive. Anecdotes reported to the

investigator by participants evidenced positive teacher attitudes toward use of the role playing strategy and positive feelings about the benefits of the strategy for both teachers and students.

Conclusions

Conclusions drawn from the findings are presented and discussed in relation to the two research questions that provided the framework for the study.

1. Will home economics teachers who participate in an in-depth study of the teaching strategy of role playing achieve a greater change in level of performance of role playing than those who receive no training?
2. Will home economics teachers who participate in an in-depth group training session concerning use of the teaching strategy of role playing plus individualized follow-up achieve a greater change in level of performance than those who participate only in the training session?

Research Question 1

Information comparing home economics teachers with in-depth training and those with no training from the investigator showed a positive significant difference ($p \leq .001$). Teachers with in-depth training showed a 33% gain in competence using the teaching strategy of role

playing. Teachers who received no training from the investigator showed a .5% gain in teaching competence. Subjective evaluation data revealed that teachers expressed a commitment to the use of the role playing strategy. They reported benefits from use of this strategy to their overall teaching competence. Based on information secured from this group of home economics teachers, the investigator concluded that in-depth training of the teaching strategy of role playing had a positive effect on the teachers' performance of the strategy.

The review of literature indicated that individual commitment, interest in subject matter, and sufficient time were viewed as essential components of effective in-service education and as vital to the change process. In this investigation, the teachers who participated in the in-depth study were: (1) committed as evidenced by the high percentage (83%) of the group who were enrolled for credit, (2) interested in the particular strategy as shown by their volunteer participation, and (3) willing to invest time to implement the teaching strategy as evidenced by the fact that they committed approximately 45 hours to complete the in-depth study. The teachers who did not receive training had expressed interest in the strategy but were unable to make a commitment of either effort or time. The reported gain in teaching competence supports the views expressed in the literature.

By-phase analysis showed significant difference in change in level of teachers' performance of the phases of the role playing strategy when those who received in-depth training were compared with those who received no training. The phases of warm-up, selecting players, and preparing observers involved the use of more concrete concepts and were different at the .01 level of significance. The sharing and generalization phase dealing with more abstract concepts showed no difference. The point of view that concrete concepts are more easily learned than are more abstract concepts was somewhat substantiated by this study.

Nine items showed significant difference in change in level of teachers' performance when comparing teachers with in-depth training in the role playing strategy with teachers who received no training. Rating scale items 6, 9, and 10 which were significantly different involved the teacher and students working together to identify and develop the role playing situation in the warm-up phase. Items 17 and 18, also significantly different, concerned the preparation of observers of the enactment. Several teachers in the in-depth study stated that they were not aware of the importance of these phases before in-depth training. Rating scale items 14, 15, 19, and 22, different at the .05 level of significance, had to do with eliciting student participation in the various phases of role playing with the teacher assuming the role of summarizer

and director of action through questioning. These teachers viewed this role as somewhat different from the information-giving role they had usually assumed in these phases. In follow-up sessions, teachers made concerted efforts to develop competence in their newly perceived role during these particular phases. This fact may explain the significant gain which the trained teachers demonstrated in these items.

In answer to the question regarding participation in a future in-depth in-service activity asked after the training session, 100% of the participants responded positively. That the teachers had sufficient time to work with the strategy, to practice it and to be assured that follow-up would be provided were viewed by the teachers as positive aspects of this in-service approach. Anecdotes reported to the investigator provided positive evidence of the teachers' commitment to implementing the strategy of role playing in their classrooms and indicated that the change process was in operation. The teachers' responses to the in-depth experience for increasing their competence in use of role playing would seem to support the ideas that time for change and support in change are characteristics of effective in-service education.

Research Question 2

Data comparing the change in level of performance of teachers who received in-depth training plus individualized follow-up with teachers who received in-depth training only showed no significant difference. Teachers with in-depth training plus follow-up showed a 23% gain in competence as compared to a 44% gain in competence demonstrated by the teachers who received only in-depth training. Based on the information secured from the teachers in the two experimental groups in this study, the in-service education approach to in-depth training plus follow-up was not more effective than in-depth training only.

There are several possible explanations for the lack of significant difference in level of teachers' performance when contrasting these two approaches. The in-depth study group were all volunteers with a high level of commitment to implement the role playing strategy. All participants knew that they would receive follow-up; it is possible that this produced a Hawthorne effect. The in-depth training session utilized a number of instructional methods including the first hand experience in planning and teaching a lesson to peers using the strategy of role playing. The group training session was designed to involve all the teachers up to or beyond the cognitive level of application. Considering the level of cognition sought and the commitment

and experience of this group of teachers, follow-up apparently was not necessary.

Posttraining audiotapes of two teachers in the training-plus-follow-up group indicated less competent performance of the strategy than did their pretraining tapes. One of these teachers was quite competent in the use of a system of role playing different from the one used in the study. The lower score on the posttraining taping might be explained by the teacher's inability to use Weil and Joyce's (1978) system of role playing. A factor of unlearning as well as learning may have been involved. The other teacher who scored lower after training reported that her students were very unwilling to attempt role playing as a learning strategy. Although the teacher's attitude toward the use of role playing in the classroom was positive she was apparently unable to develop a positive student attitude toward the strategy.

A summary of data analysis and corresponding inferences led to the following conclusions:

1. For home economics teachers in southern Arizona to implement a teaching strategy, in-depth training proved to be a successful, acceptable, and viable in-service education approach.
2. Individualized follow-up of an in-depth training session did not necessarily improve teaching competence. It would appear that follow-up might

be offered on a request basis in contrast to the approach of follow-up for each participant as was used in this study.

Recommendations

Continuation of a systematic search for information on which to base decisions concerning in-service education for home economics teachers in southern Arizona is recommended. Several recommendations for further study seem appropriate.

An extensive study is needed to compare effectiveness of other approaches of in-service education. As a result of this study it is recommended that a single short training session, a short training session plus follow-up, and an in-depth training session be compared to determine the effectiveness of each approach for various in-service activities.

The lack of significant change in level of teaching performance of the more abstract phases of role playing indicates that, in subsequent training sessions, greater emphasis should be placed on teaching abstract concepts. Additional instruction and participant practice are suggested.

Replication of this study with variations of methods and procedures is recommended. A study substituting videotaped data for audiotaped data would provide both

verbal and non-verbal communication relating to a participant's performance of a teaching strategy. Individualized follow-up within six weeks did not make a significant difference with this group of teachers. A study designed to provide for a longer follow-up period is recommended.

Issues in education such as meeting needs of a changing student population, increased demands from the public, and lowered levels of funding make in-service education for teachers essential. That continued study designed to identify effective practices in in-service education be given high priority is an overriding recommendation.

APPENDIX A

LETTER TO PARTICIPATE IN THE STUDY

*You asked for it . . .
you got it!*



Something NEW in the In-Service Education Project

In the past, we have spent most of our time in subject matter workshops and/or individual projects. You have asked for some in-depth work on teaching skills so let's try working in a different way this year!



The PLAN of Action

The plan is to focus on a single teaching strategy . . . specifically ROLE PLAYING. This will give you the opportunity to develop/enhance your teaching skills using this particular strategy. Let's begin where you are right now and work together to increase your skill in using role playing in your classroom. In addition, the results of this activity will be used to provide information on which to base decisions about the project.



For CREDIT or not

This in-depth study is a professional growth activity for you . . . and also a chance to earn one graduate credit for participation. Let us know if you are interested in the credit option as you will need to enroll for H. E. 299 (Independent Study) for spring semester.



What YOU, the participant, will do

The following will be asked of you as a participant:

- (1) audio tape a class in which you use role playing (to determine your present skill)
- (2) keep a log of teaching strategies used in your class for 2-3 months
- (3) attend a training session on role playing at the University one Saturday in January or February
- (4) plan a lesson using role playing after training
- (5) audio tape the class session using the above plan (to determine how helpful the training was).



What the PROJECT will provide for you

The project will provide the following for participants:

- (1) tapes for recording
- (2) reading materials for use before the training session
- (3) an in-depth training session in which you will learn about role playing
- (4) individualized follow-up planned to further develop your skill in using role playing in the classroom (This follow-up may be an individual school visit, a phone conference and/or materials.)
- (5) a report of project findings will be sent to participants.



Your RESPONSE is important

Please fill out the enclosed form so that we will know how to plan! I will need your responses BY DECEMBER 15th in order to set dates early. We need YOUR input . . . whether you plan to take part in this activity or not. Use the self-addressed envelope to return your reply to Shirley H. Taylor, School of Home Economics, U of A. Tucson, Arizona 85721.

Thanks, Shirley Jo

APPENDIX B

HUMAN SUBJECTS CONSENT FORM



THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721

COLLEGE OF AGRICULTURE
SCHOOL OF HOME ECONOMICS

TITLE: Comparison in Performance by Home Economics Teachers
Participating in Two In-Service Education Approaches

Subject Consent Form

This in-service education study on the teaching strategy of role playing is an activity of the In-Service Education for Home Economics Teachers Project sponsored by the Arizona Department of Education. Your participation in the study is strictly on a volunteer basis.

As I explained to you in our phone conversation, I'd also like to collect data as we proceed with the study. For your protection, it is University policy that anyone collecting data meet the requirements of the Human Subjects Review process. You are being asked to voluntarily participate in the above named project. You may withdraw at any time without incurring any ill will. You may ask any questions or refuse to answer any question at any time. In order to insure confidentiality, only project personnel will have access to the coded data. All data will be grouped for statistical treatment and reporting. It is anticipated that your time involvement will be about 45 hours whether you are a research participant or a non-research participant. There will be no cost for participating as a research subject in the study. If you elect to register for University credit (not a requirement for participation), the cost of registration would be the responsibility of the individual.

I am attaching a form for information needed to complete this research. Your completion and returning of the form will be construed as your voluntary agreement to participate as a research subject in the study.

Shirley H. Taylor

Shirley H. Taylor
Project Teacher Educator

APPENDIX C

RATING SCALE FOR ROLE PLAYING

Code _____
 Evaluator _____

In Service Education Project FY 79
 Shirley J. Taylor, Project Coordinator

RATING SCALE FOR ROLE PLAYING*

Directions: Underline the phrases which describe the teacher's and students' behavior in the lesson. In the blank at the right of each criterion, write the number which best represents an overall score for the criterion. If the criterion is not applicable in the lesson, write NA in the score column.

Criteria	1	2	3	4	5	Score
<u>Written Plan:</u>						
1. Objective for lesson clearly stated; central focus of role play relates to lesson objective	Student behavior aspect omitted; content aspect omitted		Student behavior aspect ambiguous; content aspect lacks central focus or has 2 or more foci not related to curricular goals		Student behavior aspect clear; content aspect clear; has single central focus related to curricular goals	1. _____
2. Problem situation selected suitable for students being taught; appropriate for use with the strategy	Problem situation does not reflect student needs, experience and abilities; situation not appropriate for strategy		Problem situation is too simple or complex for these students or is inappropriate for strategy		Problem selected reflects students needs, background and experience; is appropriate for use of strategy	2. _____
3. Materials present the basis for the role play; detail is sufficient to provide guidelines for students	Problem situation is too sketchy to provide a basis for role play; guidelines to carry out roles are not provided		Problem situation is fairly well developed; guidelines are not sufficient to carry out roles		Problem situation clearly presents the basis for roles; briefing sheets are provided for a complex situation	3. _____

*Adapted from Weil, Marsha and Bruce Joyce, Social Models of Teaching, Expanding Your Teaching Repertoire. Englewood Cliffs: Prentice-Hall, Inc., 1978, pp. 62-65, in which the phases and activities of role playing are based on Fannie and George Shaftel's Role Playing for Social Values. Englewood Cliffs: Prentice-Hall, Inc., 1967.

Criteria	1	2	3	4	5	Score
Written plan (cont'd)						
4. Plan provides for analysis of problem and a major focus is selected	Plans do not indicate theme or values which might be probed; focus is not identified		Plans indicate a number of themes which could be pursued; focus is vague		Plans indicate problem analysis for various themes and values; one particular focus which gets at concept being taught is selected	4. _____
5. Provides for development of all phases of strategy	Provides for no, one or two phases		Provides for four or five phases		Provides for seven phases or for nine phases if reenactment is done	5. _____
	Total score for written plan					_____
EXECUTION OF STRATEGY						
Phase One: Warm Up the Group						
6. Teacher introduces situation so students understand and can relate to it	Students do not respond to situation as presented		Students respond to situation but do not indicate that they can relate to it		Students respond to situation as posed and indicate that they can relate to it	6. _____
Discussion of the Problem						
7. Teacher encourages students to speculate on or interpret problem	Students do not express ideas about reasons for or meanings in situation; teacher does not question		Students express one or two ideas about reasons for and meanings of situation; teacher does not question to increase understanding		Students express ideas about at least three different reasons for and meaning of situation; teacher questions to increase understanding	7. _____

Criteria	1	2	3	4	5	Score
8. Teacher encourages students to clarify general category of problem (such as peer pressure, prejudice)	Students do not attempt to categorize central problem in the situation		Students attempt to categorize central problem in situation but are not successful; teacher does not question to clarify focus		Students agree upon a general category for the central problem in the situation; teacher questions to clarify if necessary	8. _____
9. Teacher draws students out to probe different sides of problem in open, free setting	Students express ideas on one side of the problem; teacher comments cut off discussion		Students express a few pro and con ideas relating to situation; teacher encourages further discussion but students do not respond		Students express a wide range of pro and con ideas relating to the situation; teacher encourages differing viewpoints	9. _____
10. Teacher involves students in setting the purpose of the role play	Purpose of role playing the problem not clarified by the teacher or students		Teacher explains the purpose of role playing the problem; purpose expressed in vague terms		Students are involved in deciding the purpose of role playing the problem; purpose expressed in specific terms	10. _____
Knowledge of Role Playing						
11. If necessary, teacher explains purpose and procedures (assuming roles, enacting situation, follow-up discussion) of role play in terms understood by students	Students comments show that they do not understand role playing; teacher does not explain		Students have questions concerning role playing; teacher tries to clarify; explanation is not clear and/or complete		Students give evidence of having a clear understanding of role playing or teacher gives clear explanation of purpose and procedures of role playing	11. _____

<u>Phase Two: Selecting Role Players</u>						
Role Analysis						
12. Teacher has students identify roles to be played and describe each in terms of general behavior and feeling	Students identify roles to be played; do not describe them		Students identify roles to be played; describe role in non-specific terms		Students identify roles to be played; describe general characteristics of each role in terms of behavior and feeling	12. _____

Criteria	1	2	3	4	5	Score
13. Teacher gets students to describe roles which reflect ideas from initial discussion of situation	Students do not use initial discussion of situation in describing roles; teacher does not question		Teacher questions students but does not succeed in getting them to relate roles to initial discussion of situation		Students respond to teacher questions to describe roles in relation to initial discussion of situation	13. _____
Selection of Role Players						
14. Teacher encourages students to participate in role playing enactment	No students volunteer; teacher unsuccessful in getting students to assume roles; role play is completed without some roles		Students volunteer for some roles; teacher prods other students to play roles until all are filled; students show reluctance to assume roles		Students volunteer for all roles or roles are filled in such a way that students express feeling all right about playing role assigned	14. _____
<hr/>						
Phase Three: <u>Setting the Stage</u>						
Setting						
15. Teacher has students describe setting so as to provide enough structure	Setting is vague; teacher does not help clarify		Students select setting; some students seem unclear so teacher clarifies		Students select setting for the situation; students understand and relate to setting	15. _____
Line of Action						
16. Teacher gets students to select a line of action realistic for the situation	Students do not select a line of action; teacher does not urge them		Teacher questions to get students to select a realistic line of action; students select a line of action which has to do with situation but is not realistic for them		Teacher questions to get students to select line of action; students select a line of action which reflects problem situation in a realistic setting	16. _____
<hr/>						

Criteria	1	2	3	4	5	Score
<u>Phase Four: Preparing the Observers</u>						
17. Teacher works with student observers so entire class experiences enactment	Observers' comments indicate that they are not aware of any responsibility during enactment or observers make no comments about their responsibility; teacher makes no attempt to clarify role of observers		Observers indicate understanding that they will be responsible to reflect on players' actions during discussion of enactment; teacher tries to clarify role of observers		Observers' comments show understanding that they will be responsible for assessing role play for realism, consequences of the line of action and feelings of the players as a basis for discussion of enactment; teacher guides clarification of role of observers	17. _____
18. Teacher assigns specific observation tasks to focus the experience for total class	Teacher does not assign observation tasks		Teacher asks observers to be generally responsible for reporting on the role play enactment		Teacher assigns specific observation tasks; explains observation tasks clearly	18. _____
<hr/>						
<u>Phase Five: Enactment</u>						
Role Play						
19. Students enact the problem situation as discussed and in a realistic, spontaneous manner	Role play was done but not in terms discussed; in a stilted manner; in an unrealistic manner		For some characters, role play is carried out in terms discussed; for others, role play was not in character. Role play was stilted or action was not realistic		Role play is carried out in terms discussed; role players were spontaneous; action was realistic	19. _____
Teacher Role						
20. Teacher breaks role play when action has illustrated idea or impasse has been reached	Role play terminated by students' silence; teacher does not encourage continuance		Role play stopped short of achievement of objective or impasse or role play continued beyond productivity		Role play stopped when objective is accomplished or an impasse reached	20. _____
<hr/>						

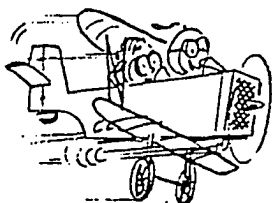
Criteria	1	2	3	4	5	Score
<u>Phase Six: Discussion</u>						
Focus						
21. Teacher gets students to review realism (probability of a similar occurrence in life) of the role play		Neither students nor teacher comment on realism of the role play	Students comment concerning realism of role play but do not indicate that they can relate to it		Students review realism of the role play in terms of their ability to relate to it	21. _____
22. Teacher elicits from the students a summary of the role play		The role play was not summarized	Teacher and students summarize the role play in terms of action presented; arguments presented are not explored, consequences of action and/or feelings of actors are not probed		Teacher and students summarize the role play in terms of arguments presented, different lines of action which might have been presented, consequences of action and feelings of actors	22. _____
23. Teacher gets students to describe how the central focus of the lesson was brought out by the role play		Students do not comment about how role play reflected central focus of lesson; teacher does not question	Students respond to teacher questions to point out a few incidents in the role play that focus the action on the lesson being taught		Students respond to teacher questions to discuss a number of incidents in the role play which center on the primary focus of the lesson	23. _____
Teacher Role						
24. Teacher assumes the role of summarizer and reflector during discussion		Teacher is verbally judgmental of student input; states own opinion as "right"; does not reflect or summarize	Teacher verbally accepts some student input; summary includes a combination of teacher's opinions and students' ideas		Teacher verbally accepts all student input; summarizes and reflects students' comments in a non-evaluative manner	24. _____
Preparing the Reenactment						
25. Teacher encourages students as they plan reenactment to try out different ways to play roles		Teacher encourages students to plan reenactment without giving attention to learnings gained from first enactment	Teacher encourages students to plan reenactment with some consideration of learnings from first enactment		Teacher encourages students as they plan reenactment to try out ideas developed in discussion of the first role play	25. _____

Criteria	1	2	3	4	5	Score
<u>Phase Seven: Reenactment</u>						
26. Students reenact problem situation incorporating new interpretations as discussed	Students reenact the role play; interpretations duplicate first enactment		Students complete reenactment; new interpretations depart from original focus or original focus is maintained but interpretation differs only slightly from first enactment		Students complete reenactment; original focus maintained with new interpretation of roles	26. _____
<u>Phase Eight: Discussion and Evaluation</u>						
Discussion						
27. Teacher leads discussion of reenactment that is stimulating to students	Students do not discuss role play		Students in discussion demonstrate mild interest in ideas from reenactment		Students in discussion show much interest in ideas from reenactment	27. _____
Focus						
28. Teacher encourages students to express and compare ideas about both enactments after summarization of major points	Students neither summarize nor discuss options presented in the enactment; the two enactments are not compared		Students summarize major points illustrated in role play; discuss some of options presented; first enactment is not compared to second		Students summarize and compare various options presented in both enactments and implications of each	28. _____
29. Teacher gets students to tell how the role play illustrated the central focus of the lesson	Central focus of the lesson in relation to reenactment not discussed by teacher or students		Teacher describes some of the points of the role play which illustrated central focus of lesson; students do not comment		Students and teacher identify particular portions of role play which illustrate the central focus of the lesson	29. _____

Criteria	1	2	3	4	5	Score
Teacher Role						
30. Teacher assumes role of summarizer and reflector during discussion	Teacher is verbally judgmental of student input; states own opinion as "right"; does not reflect or summarize	Teacher verbally accepts some student input; summary includes a combination of teacher's opinions and students' ideas	Teacher verbally accepts all student input, summarizes and reflects students' comments in non-evaluative manner			30. _____
<hr/>						
<u>Phase Nine: Sharing and Generalizing</u>						
Discussion						
31. Teacher guides students to compare role play with similar situations in real life and to own problems	Students do not compare role play to real life situations; do not relate situation to own problems	Students compare role play with a few of their experiences	Students compare role play with a variety of real life situations; share thoughts on relation of role play to own life problems			31. _____
32. Teacher elicits generalizations from students as to the issues involved in the role play	No generalized statements are drawn concerning the issues presented in the role play by teacher or students	Students make some generalizations; show little interest in further exploration	Students evidence understanding of the issues involved and make generalized statements concerning them			32. _____
33. Teacher encourages students to delve into general principles of behavior in relation to the situation which was role played	No principles of behavior related to role play situation expressed by teacher or students	Teacher states general principles of behavior related to the role play; relevance of principles in other situations not explored	Students express relationship of general principles of behavior to the situation which was role played; examine relevance of principles in other situations			33. _____
Total number of items scored						_____
Total + by number of items scored						_____

APPENDIX D

SELF ASSESSMENT INSTRUMENT FOR INDIVIDUALIZED
FOLLOW-UP

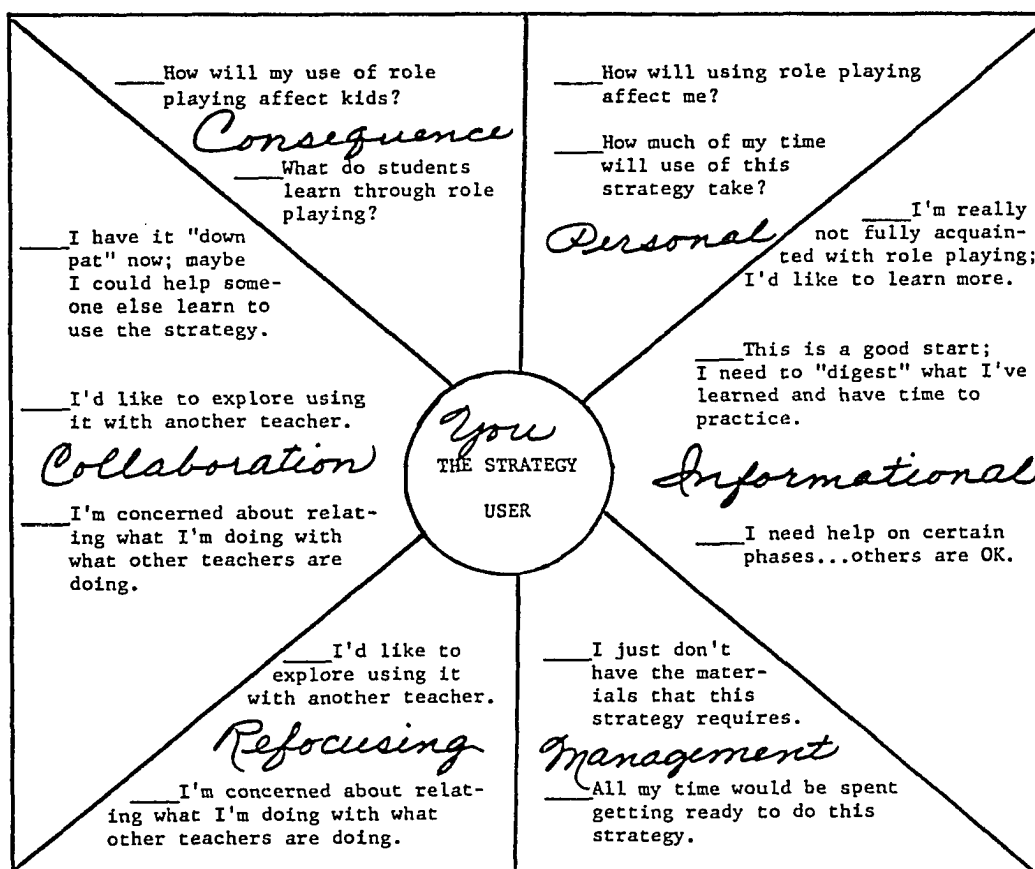


Now that you've read about the strategy of role playing, we've completed the training session and all have had a chance to teach peers in a role playing session . . .

*Where are you now?
Where do we go from here?*

NEXT STEP: INDIVIDUALIZED FOLLOW-UP

Directions: Please read the concerns in each segment of the diagram below and check(✓) the ones which are critical for you right now. Your responses will help us (you and me!) to decide how to begin the follow-up of the teaching session.



Turn to page 2 for the next step in individualized planning!

Please check (✓) the area in which most of your concerns seem to fall:

<input type="checkbox"/> Consequence	<input type="checkbox"/> Management
<input type="checkbox"/> Personal	<input type="checkbox"/> Refocusing
<input type="checkbox"/> Informational	<input type="checkbox"/> Collaboration

Listed below are some suggestions for activities which may help you deal with the identified concerns. Select those activities which you feel will be most helpful to you as you enhance your performance of the teaching strategy of role playing.

* * * * *

CONSEQUENCE

- ☐ Consult materials on and examples of evaluation instruments designed to assess the effect of role playing on students (provided by investigator)
- ☐ Develop and use a variety of evaluation tools to give feedback on effectiveness of role playing as a teaching strategy
 - instruments to measure attitudinal changes observed/recorded
 - conferences with individuals or groups
- ☐ Interact with other participants to evaluate successes and failures as an indication of how role playing strategy is affecting students

* * * * *

PERSONAL

- ☐ Share and discuss with a peer, investigator, and/or another participant the personal effects of using role playing in the classroom
- ☐ Brainstorm with a peer, investigator, and/or another participant about possible problems, anxieties, satisfactions in use of strategy

* * * * *

INFORMATIONAL

- ☐ Consult with investigator (school, mail and/or phone)
 - observe and/or record classroom role play session
 - analyze results using rating scale
 - discuss alternatives to strengthen performance

Informational (continued)

- _____ Work with investigator to improve teaching skills used as role playing strategy is performed
 - questioning
 - summarizing
 - reflecting

- _____ Consult references for further study of the strategy (provided by investigator)

* * * * *

MANAGEMENT

- _____ Develop a system for collecting a file of role play situations
 - use student help (collect from magazines, write situations from own experience or others)
 - explore various ways to file situations (subject matter areas, classes)

- _____ Consult list of sources of case studies, role play situations, short stories (provided by investigator)

- _____ Interact with other participants to share ideas on management

* * * * *

REFOCUSING

- _____ Rework role playing situations which were successful to give different focus or to teach a different concept

- _____ Teach students to use the technique as they teach a lesson to another group of learners

- _____ Begin a search for modifications of the strategy to achieve increased impact on learners

* * * * *

COLLABORATION

- _____ Explore possibilities of collaborative use role play technique with another instructor or staff member

- brainstorm for ideas
- work with teacher and/or other staff member to develop coordinated lessons or a team teaching approach

- _____ Interact with other participants by sharing experiences of working with students using the strategy of role playing

- _____ Share role playing situations (possibly with various foci listed) with another teacher

APPENDIX E

REFERENCES ON ROLE PLAYING

In-Service Education Project, FY 79
Shirley Jo Taylor, Project Coordinator

REFERENCES ON ROLE PLAYING

The following list of references contains informational and management ideas concerning the use of role playing as a teaching strategy. Management ideas are given in most of the articles marked RP, T and S/P. The letters in parenthesis after each reference gives the general emphasis of that reading. The code is as follows:

- RP = describes the steps used in the strategy of role playing with examples of situations and questions
- S = includes examples of situations which you might adapt for use in your classes
- S/P = satisfactions and/or problems which a teacher may encounter
- T = deals with the teacher's role and responsibility

These references are available through my office . . . some are hard copy, some xerox copy. Call to let me know which one(s) you'd like to use. Because I have only one copy of each, please try to use the reference and return it within 2 or 3 days. (The books are relatively short and fairly fast reading.)

* * * *

Bell, Camille and Berlie Fallon. Consumer and Homemaking Education. Interstate Printers and Publishers, Inc., 1971. pp. 208. (S)

Channels, Vera G. Experiences in Interpersonal Relationships. Interstate Printers and Publishers, Inc., 1975. pp. 335. (S)

Cheifetz, Daniel. Hit 'em Where They Live. Teacher, Feb. 1978. pp. 76-78/ (RP, T)

Chesler, Mark and Robert Fox. Role Playing Methods in the Classroom. Science Research Associates, 1966. pp. 86. (RP, S, T)

Hawley, Robert C. Value Exploration Through Role Play. Hart Publishing Company, Inc., 1975. pp. 175. (S)

Klein, Alan F. Role Playing in Leadership Training and Group Problem Solving. Association Press, 1956. pp. 176. (RS, S/P, T)

Lipson, Greta B. Folk Play: A New Technique. Clearing House, April, 1977. pp. 354-357. (RP)

Magazines such as Forecast, Sphere, CoEd, Teen Times and some of the women's magazines have short stories which are readily adaptable to a role play situation. (S)

Moreno, Jonathan D. Notes on the Concept of Role Playing. Group Psychotherapy and Psychodrama, Vol. 28, 1975. pp. 105-107. (S/P)

Moskowitz, Gertrude. Role Playing in Higher Education. Group Psychotherapy and Psychodrama, Vol. 28, 1975. pp. 135-143. (S,S/P)

Payne, Stanley. The Art of Asking Questions. Princeton University Press, 1951. pp. 249. (RP)

Roark, Albert and Gene Stanford. Role Playing and Action Methods in the Classroom. Group Psychotherapy and Psychodrama, Vol. 28, 1975. pp. 33-49. (RP, T)

Sax, Seville and Sandra Hollander. Reality Games. Macmillan Company, 1972. pp. 187-194. (RP, S)

Shaftel, Fannie. Learning to Feel with Others. Childhood Education, Vol. 27, December 1950. pp. 161-165. (RP, S/P)

Shaftel, Fannie and George Shaftel. Role Playing for Social Values: Decision Making in the Social Studies. Prentice Hall, Inc., 1967. pp. 431. (RP, S)

Shaftel, Fannie R. and George Shaftel. Building Intelligent Concern for Others Through Role-Playing. The National Conference of Christians and Jews. (RP, T, S/P)

Thompson, John F. Using Role Playing in the Classroom. Phi Delta Kappa Educational Foundation, 1978. pp. 37. (RP, S)

Torrence, E. Paul. Sociadrama as a Creative Problem-Solving Approach to Studying the Future. Journal of Creative Behavior, 3d Quarter, 1975. pp. 182-195. (RP, S)

Weil, Marsha and Bruce Joyce. Social Models of Teaching--Expanding Your Teaching Repertoire. Prentice-Hall, Inc., 1978. pp. 25-108. (RP, T)

Young, Bruce and Morris Rosenburg. Role Playing as a Participation Technique. Journal of Social Issues, Vol. V, Winter 1949. pp. 42-45. (S/P, T)

APPENDIX F

ORIGINAL DATA

REMARKS (TYPE OF CARD, INTERPRETING, LISTING, ETC.) _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50								
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24	3	6								1	1	1	1	1	1			1	1	2	1	4	1	1	1	1	5	5	3	1	1	1	1	4	1	4	5	4	5																			
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26	3	8								1	3	1	1	1	1			1	1	1	4	5	1	1	1	1	1	2	5	1	1	1	1	1	5	5	5	5																				
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University of Arizona — AGRICULTURAL EXPERIMENT STATION

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Name

Address

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WHEN CARDS ARE READY.

DATE REQUIRED.

PAGE No. of 1 Pages

Pages

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APPENDIX G

ARITHMETIC SCORES AND CHANGE IN LEVELS OF PERFORMANCE OF PARTICIPANTS

Arithmetic Scores and Levels of
Performance of Participants

Case No.		Scores		Change in Level of Perf.
		Pre-Evaluation	Post Evaluation	
Training Plus Follow-Up	1a	1.318	3.286	1.968
	2a	3.272	2.955	- .317
	3a	1.636	2.821	1.185
	4a	1.455	2.821	1.366
	5a	2.227	2.607	.380
	6a	3.000	4.393	1.393
	7a	1.286	1.929	.643
	8a	3.182	2.536	- .646
	9a	1.500	3.821	2.321
Training Only	1b	1.227	3.786	2.559
	2b	1.955	4.429	2.474
	3b	2.393	3.821	1.428
	4b	2.000	2.929	.929
	5b	1.364	2.500	1.136
	6b	2.136	3.607	1.471
	7b	1.318	4.143	2.825
	8b	2.318	4.000	1.682
	9b	2.090	3.393	1.303
No Training	1c	1.773	2.773	1.000
	2c	1.909	1.273	- .636
	3c	2.000	2.045	.045
	4c	2.091	1.864	- .227
	5c	1.273	1.409	.136
	6c	2.273	2.000	- .273
	7c	3.455	3.182	- .273
	8c	1.679	2.182	.503
	9c	1.864	1.773	- .091

APPENDIX H

ANECDOTES ABOUT ROLE PLAYING

In-Service Education Project, FY 79
Shirley Jo Taylor, Project Coordinator

ROLE PLAYING EXPERIENCES Sharing Ideas, Suggestions,
and Spin-Offs

Teachers participating in the study of role playing have reported various successes along with a few less successful performances. Some of these ideas may be helpful to you as you continue to work on this new-to-you strategy!

....Practice, practice, practice. It is amazing how much easier the strategy is to use as you become more confident and comfortable!

At first, nine phases seemed like a very long procedure. Breaking the strategy into its simplest parts was intended to make it easier to use. As you become more familiar with the strategy, you probably will not have to think about doing each part.....it will become more automatic. Think back to when you were learning to drive.....when driving now, do you have to concentrate on the simplest details as you did then? As your expertise in using the strategy of role playing increases, you will be able to concentrate more on working with the students and less on the mechanics of using the strategy.

Teacher A said she'd progressed to the point of putting a few key words such as setting, situation, generalization, etc., on a card, just to make sure she covered the essentials. Thinking the whole process through (some write it out, others don't) is a major key to success.

....Use of this strategy tends to focus on a teacher's questioning skill. In order to take the teacher's role of summarizer and reflector, questioning at a higher level becomes an important tool. Teacher B remarked that (1) she became aware that the level of most of the questions which she asked students was low and (2) she consciously worked on phrasing questions at a higher level when she used role playing in class.

As you plan a role playing session, it may be helpful to write out questions which will guide students to think critically. This also focuses your attention to being non-evaluative in your role as summarizer.

- "If at first you don't succeed, try, try again."
 Teacher C related that she'd used role playing with a "good" class and the results were mediocre. She seriously considered changing to a different strategy for a later, "more difficult" class but decided to give it one more try. The results were spectacular! Students who had never worked together became involved in the role play; students who rarely participated in discussion spoke up; learning took place! Teacher C's comment: "Now I'm so excited about using role playing! Just look what I'd have lost (for myself and the students) if I'd given up after the first try."

Does this success story give you the impetus needed to "try again" to improve your skill? In no way are we saying that you will have instant success--learning and becoming competent at any teaching strategy is hard work! You have proven that you are willing to put a lot of time and effort into learning role playing by being a part of this in-depth study.

- Role playing is a strategy that most of you had to learn--you were the student. Teacher D discovered that her students were most cooperative when she explained that she was learning a new method of teaching. In this setting of cooperative people, role playing was successful. Teacher and students were able to self-evaluate, critique in a positive manner and all learned!
- The teacher's role of summarizer and reflector is not a particularly common role that we teachers practice. Was it hard not to tell the students how you think the situation should be role played? Did you find yourself "pushing" the students toward role playing the situation in a manner that underscored your value system? Granted, it is difficult to get out of the role of telling the students what is "right." Practice the role of facilitating so that students can make their own decisions!

Sometimes students feel uncomfortable when they have to think through a situation and make a decision. It is easier to be given "the" answer, isn't it? If this is the case, you might start out with less complex role playing situations to build up your tolerance and that of the students for this less structured way of teaching and learning. As you all become more comfortable, you can progress to more complex situations.

-Other teaching behaviors become evident as teachers delve into their performance in a role playing session. Teacher E found that she gave the answers and/or prompted students too quickly. Awareness of this teaching behavior in a role playing session made her realize that she did not give the students time to think in other teaching strategies. She has been working very hard to just wait that 30 seconds (or whatever time it takes) to give students time to respond. Is this a behavior you could work on?
-Some teachers had practiced the strategy enough to feel comfortable. Their plans for use next year are interesting and seem to be very workable.
 - Teacher F plans to begin using the strategy immediately in the fall so that students (1) learn how to role play, (2) recognize role playing as a way to learn, and (3) realize that role playing has a definite purpose. Hopefully, this will curtail some of the "goofing off," yet still provide an open, accepting classroom climate in which role playing can be successful and effective.
 - Teacher G teaches her food service class with individualized learning packages. This summer she plans to write at least one role playing activity into every unit. (Units are 2 weeks long.) This will give small groups of students an opportunity to interact and prompt them to do some critical thinking.
 - Teacher H plans to begin using role playing early in the fall semester to help build positive self concepts and human relations skills in her junior high classes. She plans to use role playing in getting students to participate in planning what they will learn.
-Focus can be a problem! Keeping a role play "on track" takes an alert teacher. The question came up about changing focus. After a role play is completed, it seems to me that if students want to redo the role play with a second focus, they should be able to do so. Some things to think about: Will a second role play contribute to the learning objective for the day? Is this that "teachable moment" at which time an important concept may be explored? Will you work through a new purpose and setting up a situation so that students really know what they are supposed to be learning?
-A number of teachers used role playing to get at classroom/school management kinds of problems. Use

of role playing with a problem solving focus was used a number of times. Some actual situations which were role played included:

- (1) Unacceptable behavior by upper classmen in an assembly caused the assembly to be cancelled for lower classmen.
- (2) a new girl was not being accepted at a junior high school foods lab.
- (3) two students were behaving in such a way as to disrupt class, distract teacher, and decrease learning.

The results were varied.....it gave the students a chance to express their feelings, explore a number of possible "solutions," and then to try out one or more solutions. This could lead to students being allowed to regulate their own class.

....Role playing is a teaching strategy which is useful in many disciplines. Because role playing was used so successfully in home economics classes, teachers from other disciplines became aware of the USE and MISUSE of the strategy. Teacher I had a marvelous time working with students AND social studies teachers who were experiencing effective role playing for the first time!

Teacher I's next project is to write a learning package for teaching students about handicapping conditions. This package will include role playing situations, teacher instructions for using the strategy of role playing (just in case they don't know the 9 phases!), and "hands-on" experiences to be performed with simulated handicaps. (Example: Student's arm is bound to the body. The assignment is to make a batch of cookies in foods lab.)

....Share your knowledge of the strategy!

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