

THE RELATIONSHIP BETWEEN OKLAHOMA HOME
ECONOMICS TEACHERS' SELF-ESTEEM AND
THEIR CLASSROOM INTERACTION

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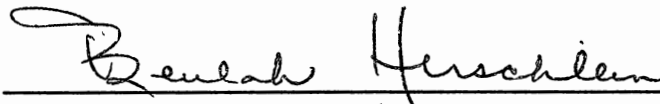
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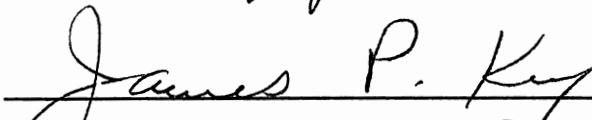
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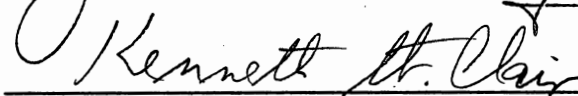
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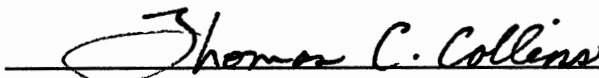


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CHAPTER I

INTRODUCTION

No printed word nor spoken plea
Can teach young minds what men should be,
Not all the books on all the shelves
But what the teachers are themselves.

Anonymous (Purkey, 1970, p. 45)

A basic assumption of the theory of self-esteem is that people behave according to their beliefs (Purkey, 1970). If this is true, it then follows that a teacher's beliefs about himself/herself are crucial factors in determining the teacher's actions and effectiveness in the classroom.

In addition to self-esteem, a teacher's interaction in the classroom is also related to teaching effectiveness. This was noted years ago by Barr (1961) as he emphasized the importance of teachers' classroom interaction in the teaching/learning process. He stated that the interactions between teachers and students were the focal points of teaching and one of the critical factors in teaching effectiveness.

Statement of the Problem

How important is self-esteem in the context of teaching? Research indicated that teachers with high self-esteem were likely to be happier, more productive, and more effec-

tive in the classroom (Jersild, 1955; Mellin & Forbes, 1989; Purkey, 1970; Schultz & Hausafus, 1982; Thomas, 1980).

Combs (1965) believed that effective teachers had high self-esteem. He wrote:

Good teachers see themselves as worthy rather than unworthy. The good teacher sees himself as a person of consequence, dignity, integrity and worthy of respect; as opposed to being a person of little consequence who can be overlooked, discounted, whose dignity and integrity do not matter.

(p. 70)

In his research, Combs (1965) found that effective teachers could be distinguished from ineffective teachers on the basis of their attitudes about themselves and others. He further indicated that a teacher's effectiveness was not necessarily dependent on his/her knowledge or methodology but rather on how the teacher viewed his/her "self."

A pioneer in emphasizing the importance of the attitudes that teachers held about themselves, Jersild (1955) stated that the self-understanding of teachers was a necessary factor in coping with feelings and becoming more effective in the classroom. He argued that teachers' personal problems often interfered with their effectiveness in teaching; therefore, an understanding of the influence of teachers' attitudes and feelings concerning "self" was vital in working with students.

In noting the five basic personal qualities of a successful teacher, Harmer (1969) listed a healthy self-concept first. Like Harmer, Doherty (1980) felt that self-esteem was important in the context of teaching. He concluded from his study that self-esteem was related to a teacher's mental health and general efficiency. Doherty further noted that a teacher's teaching behavior could not be separated from his/her personal adjustment. Rather, the teaching behavior was an extension of the teacher's everyday behavior, which was determined largely by his/her self-esteem.

In addition to being related to teaching effectiveness, teacher self-esteem is closely related to student self-esteem (Jersild, 1955; Purkey, 1970; Tonelson, 1981). Evidence indicated that those teachers with the clearest and most positive sense of self were in the best position to facilitate the development of high self-esteem in their students. It seems there is a definite relationship between the way individuals view themselves and the way they view others. Those who accept themselves tend to be more accepting of others, while those who reject themselves hold a correspondingly low opinion of others (Purkey, 1970).

Teachers cannot begin to understand and help others unless they understand themselves (Tonelson, 1981). It is only through a teacher's understanding and acceptance of self that he/she is able to help students gain healthy attitudes of self-acceptance (Jersild, 1955). Therefore, when teachers possess high self-esteem themselves, they are bet-

ter able to facilitate the development of high self-esteem in their students.

Like teacher self-esteem, teacher classroom interaction is related to teaching effectiveness (Check, 1986; Hart, 1987; McLaughlin & Talbert, 1990; Perrott, 1982; Wassermann, 1982). Flanders (1970) investigated the effect of direct versus indirect teacher behavior. According to Flanders, direct teaching was characterized by teacher reliance on lecture, criticism, justification of authority, and giving directions. Indirect teaching was characterized by teacher reliance on asking questions, accepting students' feelings, acknowledging students' ideas, and giving praise and encouragement. Flanders found that students of teachers using an indirect style of interaction made superior gains in achievement and had better attitudes toward learning.

Other researchers have reached similar conclusions regarding the relationship between teacher classroom interaction and teaching effectiveness. Perrott (1982) stated that teachers' verbal and nonverbal classroom interaction behaviors affected teaching effectiveness. Check (1986) concluded in his study that effective communication in teaching was an essential trait for effective teaching, while two of the most negative teacher qualities were the inability to communicate and aloofness. Wassermann (1982) stated that teachers' sustained use of directive interactions promoted pupil dependence, seriously impairing students' abilities to make decisions. On the other hand, when

teachers used a high proportion of interactions requiring higher level pupil thinking and reflection, students learned to become more self-initiating, self-reliant, thoughtful, and capable of making independent, reasoned decisions. Hart (1987) noted that a low quality and quantity of teacher interaction in the classroom may negatively influence intellectual development, learning, and the development of interpersonal skills.

In addition to being related to teaching effectiveness, teacher classroom interaction is also related to student self-esteem (Battle, 1981; Berliner, 1985; Henjum, 1983; Kostelnik, Stein, & Whiren, 1988; Silvernail, 1985). The teacher is the most significant person affecting children's feelings of self-worth after they enter school (Battle, 1981), and the nature and frequency of teachers' interactions with students directly influence students' self-esteem (Berliner, 1985; Silvernail, 1985). Teacher verbalizations significantly influence the degree to which students perceive themselves as worthy and competent or the opposite (Kostelnik, Stein, & Whiren, 1988).

Staines (1958) found that teachers who used democratic methods, made positive comments, and gave consideration to students' self-esteem increased the self-esteem of their students. However, teachers who emphasized correctness of subject matter and did not recognize the important role of self-esteem in the educational process were associated with students who exhibited insecurity and maladjustment. Thus,

it appears that the manner in which teachers interact with students significantly affects students' self-esteem.

It seems, then, that teacher self-esteem is related to teaching effectiveness and student self-esteem. Likewise, teacher classroom interaction is related to teaching effectiveness and student self-esteem. Although many studies have explored students' self-esteem, few have investigated teachers' self-esteem. Because both teacher self-esteem and teacher classroom interaction affect teaching effectiveness and student self-esteem, there is a need to determine whether a relationship exists between teacher self-esteem and teacher classroom interaction. There is also a need to determine whether teacher self-esteem and teacher classroom interaction are influenced by other identifiable teacher characteristics.

Purpose and Objectives

The purpose of this study was to examine the relationship between home economics teachers' self-esteem and their classroom interaction and to determine whether teacher self-esteem and classroom interaction varied according to selected teacher characteristics. Specific objectives of this study were to:

1. Assess the relationship between teacher self-esteem and teacher classroom interaction.
2. Determine whether teacher self-esteem varied according to:

- a. age,
 - b. years of teaching experience, and
 - c. teacher's total enrollment.
3. Determine whether teacher classroom interaction varied according to:
- a. age,
 - b. years of teaching experience, and
 - c. teacher's total enrollment.

Assumptions

A questionnaire was used to gather data for this study. The accompanying cover letter was signed by the Oklahoma Home Economics Education State Supervisor, and the cover letter, questionnaire, and a return envelope were mailed with a packet of materials from the state supervisor. It was assumed that the state supervisor's endorsement and the association of the questionnaire with materials from the state supervisor motivated teachers to respond to the questionnaire.

The time of year in which the data were gathered was assumed to be indicative of the normal school year and therefore, indicative of teachers' usual self-esteem and classroom interaction. In addition, it was assumed that the home economics teachers in this study were normally functioning adults who responded accurately and honestly to the questionnaire.

Limitations

This study involved a random sample of secondary vocational home economics teachers who were teaching home economics in Oklahoma during the 1991-92 school year. Therefore, results may not be generalized beyond the secondary level or to other states.

The information used in this study was gathered by a self-report instrument. Therefore, the quality of the data was limited to the accuracy and honesty of the respondents.

Pilot testing the Lee Classroom Interaction Inventory (LCII), which was developed by the author, indicated that the instrument was valid and reliable. However, conclusions regarding validity and reliability of the LCII were limited to this preliminary examination, and the inventory should be further analyzed to assure its validity and reliability.

Although no known unusual events which may have influenced teachers' responses occurred during the data collection phase of the study, it can't be known for sure whether such an event indeed occurred and affected teachers' responses.

Definition of Terms

The following terms are defined as they were used in this study.

1. Self-esteem is the individual's feeling of personal worth and his/her evaluative attitude toward

himself/herself in social, academic, family, and personal areas of experience as measured by the Coopersmith Self-Esteem Inventory (Coopersmith, 1981).

2. Teacher classroom interaction is behavior exhibited by teachers in initiating or responding to student communication.

Summary

Chapter I provided an introduction and statement of the problem of this study, followed by the purpose, objectives, assumptions, and limitations of the study. The chapter concluded with a definition of terms. Chapter II presents a review of literature related to self-esteem, teacher classroom interaction, and selected teacher characteristics.

CHAPTER II

REVIEW OF LITERATURE

The review of literature includes six areas related to the study. The chapter begins with a review of various definitions of self-esteem, followed by a section which distinguishes high and low self-esteem. The review also contains a discussion of the research related to teacher self-esteem, teacher classroom interaction, teacher self-esteem as it relates to teacher classroom interaction, and teacher self-esteem and classroom interaction as they relate to other selected teacher characteristics. The review concludes with a summary.

Definitions of Self-Esteem

Before beginning a review of the literature, it was important to define the term, self-esteem. This was difficult, because as Wells and Marwell (1976) noted, "Self-esteem is a deceptively slippery concept about which there is a good deal of confusion and disagreement" (p. 5). Although many psychologists and educators used the terms "self-esteem" and "self-concept" interchangeably, this study distinguished between the two.

According to Beane and Lipka (1984), self-concept referred to the description an individual attached to himself/herself based on the roles played and personal attributes believed to be possessed. For example, the statement, "I am tall," expressed the self-concept as it involved a description of self. Self-esteem, on the other hand, referred to the evaluation one made of the self-concept description and to the level of satisfaction attached to that description (Beane & Lipka, 1984). In contrast to the statement above, the statement, "I am too tall," reflected the self-esteem as it involved an evaluation of the self-concept description.

Self-esteem can also be defined as a psychological relationship between different sets of attitudes. Over 100 years ago, James (1890) conceptualized self-esteem as a ratio of actualities to supposed potentialities in his equation:

$$\text{self-esteem} = \frac{\text{pretension}}{\text{successes}} \quad (\text{p. 310}).$$

James seemed to use the term, pretensions, as aspirations or intentions, therefore having similar meaning as the term, potentialities. His definition involved two sets of attitudes: how a person might be with respect to some quality or ability and how the person actually perceived himself/herself to be.

Rosenberg (1965) defined self-esteem as the evaluation which the individual made and customarily maintained with

regard to himself/herself. He added that self-esteem expressed an attitude of approval or disapproval.

Wells and Marwell (1976) published an extensive survey of research that had been completed by the mid-1970's in the area of self-esteem. Their review contained over 500 references and a summary of several authors' definitions of self-esteem.

Silvernail (1985) distinguished between self-concept and self-esteem by noting that self-concept could be defined as the way individuals perceived themselves and their opinions regarding how others perceived them. As such, the self-concept was multifaceted. Self-esteem, on the other hand, was the evaluative dimension of self-concept. While the self-concept described an individual's perceptions, the self-esteem evaluated those perceptions.

According to Searcy (1988), the self-concept consisted of the ideas a person had about himself/herself and an assessment of skills and traits possessed, while an individual's self-esteem involved how much that individual felt he/she was worth.

According to Coopersmith (1967), the self-concept represented the totality of perceptions an individual held about himself/herself. As such, the self-concept was multi-dimensional, and one of those dimensions was self-esteem. Self-esteem referred to the evaluation a person made and customarily maintained with regard to himself/herself. Self-esteem expressed an attitude of approval or disapproval

and indicated the extent to which a person believed himself/herself to be capable, significant, successful, and worthy. In short, a person's self-esteem was a judgment of worthiness that was expressed by the attitudes held toward the self. It was a subjective experience conveyed to others by verbal reports and other overt expressive behavior.

High and Low Self-Esteem

It is generally accepted that high self-esteem is better than low self-esteem, but why is this so? Research indicated that individuals who possessed high self-esteem were happier and more effective in meeting environmental demands than were persons with low self-esteem (Coopersmith, 1967; Rosenberg, 1965). Individuals with high self-esteem liked themselves and consequently felt important, capable, and successful (Briggs, 1975; Weinhold & Hilferty, 1983). Such individuals were also more likely to possess inner peace and good mental health (Shepard, 1979; Vogel, 1974).

In his study, Coopersmith (1967) found that persons with high self-esteem appeared to be "personally effective, poised, and competent individuals who were capable of independent and creative actions" (p. 249). They were less anxious, more socially skilled, and able to deal with demands in a direct and incisive manner. Conversely, persons with low self-esteem believed they were powerless and felt "isolated, unlovable, incapable of expressing and defending themselves, and too weak to confront and overcome their

deficiencies" (p. 250). They tended to withdraw from others and suffered consistent feelings of distress.

Rosenberg (1965) defined high and low self-esteem as follows:

When we speak of high Self-Esteem, then we shall simply mean that the individual respects himself, considers himself worthy; he does not necessarily consider himself better than others, but he definitely does not consider himself worse; he does not feel that he is the ultimate in perfection, but on the contrary, recognises [sic] his limitations and expects to grow and improve. Low Self-Esteem, on the other hand, implies self-rejection, self-dissatisfaction, self-contempt. The individual lacks respect for the self he observes. The self-picture is disagreeable, and he wishes it were otherwise. (p. 22)

In his study of 5000 adolescent boys from ten high schools in New York, Rosenberg (1965) found that individuals low in self-esteem seemed to be more anxious and to suffer more psychosomatic symptoms than the average. In addition, the adolescents with lower self-esteem tended to be more sensitive, easily hurt, self-critical, and awkward in social relationships. In general, adolescents with low self-esteem tended to see the social environment as hostile and threatening, and they were less trusting in other people.

Like Rosenberg, Critelli (1987) noted that adolescents with low self-esteem were more prone to depression and psychosomatic symptoms, more shy, less secure, and more easily hurt by criticism than those with high self-esteem. In addition, they were less active in extracurricular activities and less likely to show leadership abilities.

Murstein (1973) contended that self-esteem was a negotiable asset in the social world, and those with higher levels of self-esteem were usually considered more desirable as potential spouses than those with lower self-esteem.

In his hierarchy of needs, Maslow (1970) maintained that as long as self-esteem needs were not met, one could not adequately attend to the challenge of meeting higher level needs.

After completing an extensive review of self-esteem research, Wells and Marwell (1976) concluded that in general, high self-esteem was assumed to be related to healthy behavior and good adjustment. Low self-esteem, on the other hand, was associated with a lack of self-confidence, dependence on others, shyness, defensiveness, lack of imagination and creativity, value conformity, lack of flexibility, and authoritarianism.

Teacher Self-Esteem

In general, research indicated that a teacher's personal behavior, teaching behavior, and ultimately teaching effectiveness were determined largely by his/her self-esteem

(Combs, 1965; Doherty, 1980; Purkey, 1970). Research further indicated that teachers significantly influenced the personal growth and self-esteem of their students (Gorrell, 1990; Jersild, 1955; Pine & Boy, 1979; Ruben, 1986; Silvernail, 1985; Wagner, 1983). Although many studies have explored self-esteem in children and adolescents, few have investigated teacher self-esteem (Doherty, 1980; Gurney, 1987).

Of those existing studies concerning teacher self-esteem, some emphasized the importance of teacher self-esteem as it related to students' self-esteem. For example, a three-year study utilizing a control group was conducted to determine whether the use of a self-esteem program in a school could significantly impact student self-esteem (Reasoner & Gilberts, 1988). Results showed that teacher self-esteem proved to be a significant factor in building student self-esteem.

Silvernail (1985) also noted the relationship of teacher self-esteem to students' self-esteem. He stated that teachers with high self-esteem projected this image to their students and provided valuable role models for them. Teachers who had realistic conceptions of themselves helped students make realistic self-assessments, thereby enhancing students' self-esteem.

Although Black (1991) noted that a student's self-esteem was influenced primarily by his/her family, she acknowledged the importance of teacher self-esteem in pro-

viding a classroom atmosphere that enhanced student self-esteem. In conducting a study on self-esteem for a school district, Black abstracted and synthesized over 100 publications concerning self-esteem. She concluded from this review of the literature that the best way for teachers to enhance a student's self-esteem was to foster an environment in which individuals were always respected and valued, an environment more likely to be provided by a teacher possessing high self-esteem.

According to Purkey (1970), a teacher needed positive and realistic attitudes about himself/herself before he/she could reach out and help others. Conversely, teachers who rejected themselves and possessed low self-esteem tended to have correspondingly low opinions of those around them. Therefore, teachers with high self-esteem were more likely than those with low self-esteem to enhance the self-esteem of their students.

Wolf and Schultz (1981) investigated the relationship between teacher self-concept, which appeared to be interchangeable with this study's definition of self-esteem, and characteristics of the teacher as a helping person. Results indicated that how a teacher felt about himself/herself affected his/her interaction with others. If a teacher did not have a high level of self-esteem, then that teacher was less able to impart the value of interpersonal caring to others, a value Wolf and Schultz contended was central to the mental health of all individuals.

Other studies have investigated the effect of teacher self-esteem as it related to teaching adjustment and performance. Crane (1974) found a significant relationship between teachers' acceptance of themselves and adjustment to teaching. His sample consisted of three groups of student teachers: students who appeared to be well adjusted to the student teaching course and teaching, those who had considered withdrawing from the student teaching course and appeared less well adjusted, and students who were unable to adjust to student teaching and had withdrawn. The third group had significantly lower opinions of themselves and others than the two groups who remained in the student teaching course. Crane's research suggested that those students who possessed high self-esteem were more likely to adjust successfully to a teaching career.

Schultz and Hausafus (1982), who appeared to define self-concept as this study defined self-esteem, investigated the relationship of college faculty self-concept to productivity, as reflected by number of grants, publications, and job offers. With 238 home economics college faculty members in their sample, Schultz and Hausafus found that the more positive the self-concept, the more productive the faculty members were.

Vukovich and Pfeiffer (1980), also utilizing the term self-concept as this study defined self-esteem, contended that competence in self-appraisal was a necessary skill for the professional growth of teachers. They investigated the

relationship between the self-concepts and self-evaluation skills of 39 pre-service teachers. They found that those pre-service teachers with higher self-concepts were more accurate self-evaluators than those with lower self-concepts.

Pozarny (1990) investigated the relationship between teacher self-esteem and teacher attitudes toward peer coaching, a process in which teachers observed peers and provided feedback in order to improve instruction. Pozarny hypothesized that teachers with high self-esteem would be more willing than those with low self-esteem to participate in the peer coaching process. Upon completion of her study, she concluded that one dimension of teacher self-esteem, successfulness, affected teachers' attitudes toward the benefits of peer coaching, while another dimension of teacher self-esteem, pride, did not reliably predict teachers' attitudes toward or willingness to participate in peer coaching.

Doherty (1980) investigated the relationship between self-esteem and teaching performance in a group of 174 student teachers. He found that students with low levels of self-esteem experienced more psychosomatic symptoms and possessed a more unstable self-concept than students with high self-esteem. In addition, students with low self-esteem were rated as less competent student teachers, were less integrated socially with other members on the staff, and experienced a higher degree of stress during their student teaching experience. Finally, these student teachers seemed

to encounter more emotional problems stemming from teaching practice and were absent from their teaching experience more often than those student teachers with high self-esteem. Doherty concluded that self-esteem was an important dimension in teaching performance.

The value of a self-esteem enhancing seminar for prospective teachers has also been explored. Donnelly (1990) investigated the immediate and longer-term effects of a one-time, taped self-esteem seminar on the self-esteem of 72 college students enrolled in an undergraduate teacher preparation program. Students completed the Coopersmith Self-Esteem Inventory prior to, after, and 21 days after viewing the taped, self-esteem seminar. Upon analysis of the data, Donnelly concluded that a 30-minute, one-time self-esteem seminar had no effect on improving prospective teachers' self-esteem.

Are there differences in the self-esteem of teachers who respond to an initial questionnaire and those who respond later to a follow-up questionnaire? Green (1991) investigated demographic, attitudinal, and response-completion differences among initial and follow-up respondents to a mail survey sent to 600 elementary and secondary teachers. After interviewing 25 nonrespondents, Green concluded that delay of response was associated with lower interest in the topic being investigated and lower self-perception of the skills being examined. Perhaps, then, teachers who respond promptly to a mailed question-

naire possess higher self-esteem than those teachers who respond later to a follow-up questionnaire.

Teacher Classroom Interaction

Research indicated that teacher classroom interaction was related to teaching effectiveness (Check, 1986; Hart, 1987; McLaughlin & Talbert, 1990; Perrott, 1982; Wassermann, 1982). Tonelson (1981) noted that the psychological environment of the classroom was created from the interactions that teachers and students had with each other. Tonelson contended that classrooms with a healthy psychological environment were: (1) warm, i.e., each individual student felt he/she was respected as a unique individual; (2) accepting, i.e., students were accepted as worthy individuals; and (3) permissive, i.e., students were allowed the freedom to explore and be themselves. Tonelson concluded that classrooms with healthy psychological environments were informal, friendly, and managed by teachers who viewed themselves as facilitators rather than directors.

Deibert and Hoy (1977) distinguished between two types of classroom atmospheres: the custodial climate, which was characterized by concern for maintenance of order, preference for autocratic procedures, and impersonalness; and the humanistic climate, which was characterized by democratic procedures, student participation in class, personalness, flexibility, and teacher-student interaction. Deibert and Hoy found that students in humanistic environments demon-

strated higher degrees of self-actualization than those in custodial climates.

Although meaningful relationships with teachers are essential for effective learning, Hart (1987) noted that some teachers generally failed to provide a sufficiently healthy classroom climate that promoted good relationships with students. Goodlad (1983) also noted the scarcity of meaningful teacher-student relationships in his study involving 1000 schools. He found that teachers spent only an average of seven minutes per day in one-on-one interactions with students.

As a result of his studies concerning teacher and student interactions in the classroom, Flanders (1970) concluded that most classrooms were characterized by too much teacher talk and not enough student talk. He felt teachers should be more indirect in their teaching, i.e., question more, lecture less, and accept, praise, and make instructional use of ideas and feelings expressed by students.

Wassermann (1982) stated that teacher interaction which was predominantly directive and judgmental promoted pupil dependence and dampened student creativity. Conversely, when teacher interaction required higher level pupil thinking and reflection, students became more autonomous, i.e., more self-reliant, self-initiating, and more capable of making independent, reasoned decisions.

Wragg (1982) studied the relationship between teacher interaction behaviors and student classroom behavior. He

found significant correlations between teacher sensitivity and sustained student talk, teacher warmth and frequency of student questions, and teacher insecurity and frequency of teacher classroom commands.

Some studies concerning characteristics of effective teachers described effective teachers in terms of the types of interaction behaviors they exhibited. Seif (1979) described effective teachers as those who used personalized approaches in their teaching. Classrooms of such teachers were generally characterized by a highly structured yet informal style of teaching. McLaughlin and Talbert (1990) added that teachers of such personalized environments interacted extensively with students and maximized student involvement in the classroom. After analyzing more than 700 research papers, Langlois and Zales (1991) described an effective teacher as one who involved students in instruction and created a supportive, cooperative classroom environment.

Combs (1965) described effective teachers as helping rather than dominating, understanding rather than condemning, and accepting rather than rejecting. Effective teachers valued and encouraged interaction, experimentation, and flexibility. In providing effective learning environments, these teachers dispensed with rigid controls, conformity, and externally imposed concepts of order.

Like Combs, Check (1986) studied unique traits possessed by both effective and ineffective teachers. Results

from his study revealed that effective communication in teaching, use of humor in the classroom, and availability for providing extra help were among the essential interaction behaviors for effective teaching. Among the most negative teacher interaction behaviors were inability to communicate, aloofness, and insensitivity to student needs.

Purkey (1970) noted teacher interaction behaviors which were particularly important in creating a classroom environment conducive to developing high self-esteem in students. Among these were behaviors which projected warmth and respect for students. Teachers who were characterized as warm, friendly, understanding, and tolerant promoted feelings of worth in their students. Likewise, teacher behaviors which projected respect for students enhanced the development of self-esteem in students.

Teacher Self-Esteem and Classroom Interaction

Teacher self-esteem is related to teacher classroom interaction and ultimately to a teacher's ability to provide an effective classroom learning environment (Beane, Lipka, & Ludewig, 1980; Canfield, 1990; Henjum, 1983; Thomas, 1980; Tonelson, 1981; Wolf & Schultz, 1981). Wagner (1983) stressed the importance of teacher self-esteem to teacher classroom interaction, emphasizing the ultimate effect of both on the classroom environment.

Tonelson (1981), using the term self-concept as this study utilized the term self-esteem, stated that only a teacher with a positive self-concept could interact with students in such a way as to provide a warm and accepting classroom environment. He described this type of classroom atmosphere as psychologically healthy, maintaining that only teachers with high self-esteem could provide such a classroom environment. Teachers with low self-esteem, on the other hand, were more likely to produce disinterest, anxiety, hostility, and limited achievement by students (Canfield, 1990; Henjum, 1983).

Like Tonelson, Whisler (1991) felt that a teacher's state of mental health, which she defined as this study defined teacher self-esteem, was the key to a teacher's ability to provide an effective learning environment for students. Whisler also noted the importance of teacher interaction with students in enhancing students' self esteem.

Burns (cited in Thomas, 1980) investigated the relationship of teacher self-attitudes to preferred teaching approaches. He found that those teachers with positive attitudes toward themselves preferred a personalized, unstructured teaching approach. Conversely, those teachers with less favorable attitudes toward themselves preferred more formal, structured, and less personalized approaches. It seemed, then, that teachers with lower self-esteem were

more likely to utilize teaching methods which defended their vulnerable personality structures.

Like Burns, Trowbridge (1973) attempted to relate teacher self-concept to the actual practice of teaching. She found that teachers with lower self-concepts talked more while allowing their students to talk less during class and spent considerably more time on routine matters than did teachers with high self-concepts. Conversely, teachers with high self-concepts delegated routine tasks to individual students, which left the teacher and rest of the class free to pursue learning activities. In addition, teachers with a low self-concept were more likely to use lower levels of cognitive processes with students, while teachers with high self-concepts were more likely to use divergent and evaluative thought processes. Trowbridge concluded that teachers with high self-concepts were more likely than teachers with low self-concepts to utilize teaching styles which promoted effective student learning.

Henjum (1983) investigated the relationship between self-actualizing teacher personality patterns, which he defined as similar to high self-esteem, and effectiveness during student teaching. He found that those teachers who were identified as the most self-actualizing were rated as more effective than those who were less self-actualizing. It seemed that teachers who had high self-esteem and were highly self-actualized were more likely than those with low

self-esteem to communicate and interact meaningfully with their students.

Williams (1981) examined teacher self-concept and its influence on the classroom learning environment. Unlike the previous studies reported, he found no significant relationship between teacher self-concept and teacher-student communication, i.e., teachers with high self-concepts were no more likely than teachers with low self-concepts to be perceived by students as friendly, accepting, and interested in students.

Teacher Self-Esteem, Classroom
Interaction, and Selected
Teacher Characteristics

Are there significant relationships between a teacher's self-esteem or classroom interaction and that teacher's age, years of teaching experience, or total enrollment? Little research has been completed in these areas, and what has been done has often yielded contradictory findings (Erdwins, Mellinger, & Tyer, 1981).

Age

Research indicated that there was lack of agreement concerning the relationship between self-esteem and age. Coopersmith (1981) stated that the self-esteem of a person remained relatively stable and enduring over a period of several years. He added that the self-esteem could be

affected by specific incidents or environmental changes, but it apparently reverted to its customary level when conditions resumed their normal course.

Erdwins, Mellinger, & Tyler (1981) compared the self-esteem of four age groups of adult women: 18 to 22, 29 to 39, 40 to 55, and 60 to 75. They found that the age groups did not differ significantly in their levels of self-esteem.

Other studies suggested that self-esteem did not remain stable throughout life but changed at different ages and developmental stages. Some studies suggested that women lost self-esteem during the mid-life years of the forties and fifties. Bart (1971) found that women who had focused their lives around childrearing were more likely to suffer a loss of self-esteem and become depressed when their children left home. In comparing homemakers and employed women who had entered the empty-nest years, Powell (1977) found that homemakers had significantly more emotional and physical symptoms. Likewise, Birnbaum (1975), who also compared homemakers and career women, found that homemakers had significantly fewer positive feelings about themselves.

In contrast to these findings, Neugarten (1968) found that middle-aged women reported increased self-confidence and were optimistic about having more freedom to develop their capabilities. Jaquish and Ripple (1981) reported similar results after assessing the self-esteem of 213 adults between the ages of 18 and 84. They found that the middle-aged adults, those between 40 and 60, had the highest self-

esteem. Likewise, Puglisi and Jackson (1980) found in a study of adults between the ages of 17 to 89 that the highest levels of self-esteem occurred during the middle years.

Research concerning self-esteem and older age has also yielded contradictory results. Wallach and Kogan (1961) reported little difference in the levels of self-esteem of younger and older women, while Trimakas and Nicolay (1974) reported higher self-esteem in older age. However, Puglisi and Jackson (1980) found older persons to possess lower self-esteem.

Concerning the relationship between teacher self-esteem and age, Kniveton (cited in Thomas, 1980) found that younger female teachers and older male teachers had less positive self-perceptions than other age groups.

As with teacher age and self-esteem, little research concerning the influence of teacher age on teacher classroom interaction was available. Smith (1965) found that older teachers viewed their role as one who should be seen and not heard, suggesting that they interacted less than younger teachers with their students.

However, Reynolds (1980) reached a different conclusion after completing a content analysis of studies related to teacher effectiveness, of which one criterion was classroom interaction and involvement with students. Reynolds found that a teacher's age did not influence teaching effectiveness, and therefore, classroom interaction with students.

Years of Teaching Experience

Little research concerning the relationship between teacher self-esteem and years of teaching experience was located. In his study involving teacher efficacy and self-concept, Guskey (1988) found that a teacher's years of teaching experience were not significantly related to his/her self-concept. However, as a result of their study, Kowalski and Weaver (1988) suggested that teachers with less than seven years of teaching experience were not perceived as outstanding, a determination made by whether or not a teacher possessed certain characteristics commonly associated with high self-esteem. Kowalski and Weaver reported that outstanding teachers had more than 16 years of classroom experience.

As with years of teaching experience and self-esteem, there were few studies completed concerning the influence of years of teaching experience on teacher classroom interaction. In his study involving elementary and secondary teachers, Adams (1982) found that years of teaching experience were not significantly related to teaching style. In other words, teachers who utilized a direct teaching style, characterized by more teacher talk and less teacher-student interaction, continued with that style of teaching in later years. Likewise, teachers who utilized an indirect teaching style, characterized by less teacher talk and more teacher-

student interaction, generally continued to teach that way in later years.

Teacher's Total Enrollment

Few studies concerning the relationship between teacher self-esteem or teacher classroom interaction and a teacher's total enrollment were located. In their study involving kindergarten teachers, Beckner et al. (1978) found that teachers with lower class sizes possessed a more positive self-concept than teachers with larger classes. In addition, Smith and Glass (cited in Beane & Lipka, 1984) concluded that teachers with smaller classes possessed higher morale and liked their students better than teachers with larger classes.

From his extensive synthesis of research on the effects of class size, Robinson (1990) found that in some instances more favorable teaching practices occurred in smaller classes than larger classes; however, in other instances, there were no significant differences in teaching practices in smaller and larger classes. In addition, Robinson found that several teachers whose class sizes were substantially reduced did not change their teaching techniques to take advantage of the smaller classes.

Summary

Research indicates that self-esteem plays an important role in the teaching/learning process. Although self-esteem

and self-concept are sometimes used interchangeably, they do not have the same meaning. In general, self-concept is an individual's description of himself/herself, while self-esteem is one's evaluation of that description.

It is generally accepted that high self-esteem is better than low self-esteem. Research indicates that individuals who possess high self-esteem are happier, more effective and productive in their work, mentally healthier, less anxious, more socially skilled, more well-adjusted, and more likely to participate in a variety of learning experiences than individuals with low self-esteem. In contrast, individuals with low self-esteem are more anxious, sensitive, self-critical, defensive, insecure, dependent, withdrawn, and depressed.

Research indicates that teacher self-esteem is related to teaching behavior, teaching effectiveness, and student self-esteem. It appears that teachers with high self-esteem are more likely than those with low self-esteem to perform effectively and to enhance the self-esteem of their students. In addition, teachers with high self-esteem are more productive in their work and more accurate at self-appraisal. Teachers with low self-esteem typically hold low opinions of themselves and others, report more psychosomatic symptoms, and experience more stress in their work.

Like self-esteem, teacher classroom interaction is also related to teaching effectiveness since it is largely responsible for the learning environment of the classroom.

Research indicates that an effective learning environment is one in which there is teacher warmth, teacher acceptance of students, teacher praise and encouragement, teacher flexibility, teacher sense of humor, and an indirect teaching approach. Teacher classroom interaction behaviors which are associated with less effective learning environments include the sustained use of a direct style of teaching, little teacher-student interaction, and teacher insensitivity and aloofness.

According to the research, a teacher's self-esteem appears to be related to that teacher's classroom interaction behaviors. Teachers with high self-esteem are more likely to use a personalized, informal teaching approach, an approach which has been associated with a psychologically healthy learning environment. Teachers with low self-esteem, however, seem to prefer a more formal, structured, and less personalized teaching approach, an approach which is associated with a less effective learning environment for students. It seems that teachers with high self-esteem are more likely to utilize the kinds of classroom interaction behaviors which are characteristic of an effective learning environment.

The relationships of teacher age, years of teaching experience, and total enrollment to teacher self-esteem and teacher classroom interaction are not clear. Concerning the association between age and teacher self-esteem, some research concludes that one's self-esteem remains fairly

stable and enduring throughout life, while other studies report that self-esteem changes at various stages in an individual's life. In addition, there is lack of agreement among those who assert that self-esteem changes over the life span, with some reporting an increase in self-esteem as one ages, while others report a decrease.

According to the little research available, the relationship between age and teacher classroom interaction is not clear. One study suggests that older teachers interact less with students, while another concludes that a teacher's age does not influence his/her interaction with students.

As with the relationship between teacher age and self-esteem, the few studies available concerning the association between years of teaching experience and teacher self-esteem report different results. While one study concludes that teacher age is not significantly related to self-esteem, another suggests that teachers with several years of teaching experience have higher self-esteem than less experienced teachers.

Little research concerning the relationship between years of teaching experience and teacher classroom interaction is available. However, one study concludes that years of teaching experience are not significantly related to teaching style, and therefore a teacher's classroom interaction behaviors.

Few studies regarding the association between a teacher's total enrollment and teacher self-esteem or

teacher classroom interaction are available. One study, however, concludes that teachers with lower class sizes possess higher self-esteem, while another study suggests that smaller classes are associated with more teacher interaction with students.

Chapter III describes the research design for this study, the population from which subjects were selected for the sample, the instruments that were used, the data collection method, and the statistical procedures used for data analysis.

CHAPTER III

PROCEDURES

The purpose of this study was to examine the relationship between home economics teachers' self-esteem and their classroom interaction. The study further sought to determine whether teacher self-esteem and classroom interaction varied according to teacher age, years of teaching experience, and total enrollment. This chapter presents an explanation of the methods and procedures that were utilized in this study. The topics in this chapter include the research design, population and sample, instrumentation, data collection, and analysis of data.

Research Design

A descriptive research design was used in this study as this type "describes systematically the facts and characteristics of a given population or area of interest, factually and accurately" (Isaac & Michael, 1981, p. 46). Descriptive research is primarily concerned with determining the present status of selected phenomena and trying to discover relationships among variables (Van Dalen, 1979).

According to Isaac and Michael (1981), the term, descriptive research, is often broadened to include all

forms of research except historical and experimental. Isaac and Michael note that within this broad context, there are several types of descriptive studies, one of which is survey research.

The purpose of survey research is "to collect detailed information that describes existing phenomena and to make comparisons and evaluations" (Isaac & Michael, 1981, p. 46). According to Kerlinger (1986), "survey research studies large and small populations (or universes) by selecting and studying samples chosen from the populations to discover the relative incidence, distribution, and interrelations of sociological and psychological variables" (p. 377).

Survey research is typically concerned with the assessment of attitudes and opinions, demographic information, practices, conditions, and behaviors (Gay, 1987). Such data are frequently collected by administering questionnaires.

In this study, information concerning home economics teachers' existing self-esteem, classroom interaction, and selected demographic characteristics was gathered. This descriptive study then investigated associations among these conditions, seeking to determine if there was a relationship between teachers' self-esteem and their classroom interaction behaviors. The study further sought to determine whether teacher self-esteem and classroom interaction varied according to teacher age, years of teaching experience, and total enrollment.

Population and Sample

The population for this study consisted of all secondary vocational home economics teachers who were teaching vocational home economics at the secondary level in Oklahoma during the 1991-92 school year. The sample for this study was taken from this population of 482 teachers.

Krejcie and Morgan's (cited in Isaac & Michael, 1981) table for determining sample sizes was utilized to determine an adequate sample size. From this table, it was determined that a sample size of 214 was desirable. It was decided that sampling 310 teachers would likely yield the desired 214 responses. This sample size is larger than that suggested by Van Dalen (1979) who encouraged the use of as large a sample as possible, but noted that "in descriptive research, a sample of 10 to 20 percent of the population is often used" (pp. 130-131). Thus, utilizing Krejcie and Morgan's table appeared to be a satisfactory means of determining an adequate sample size.

Random sampling was utilized to select the subjects in this study. A randomized list of the names of all 482 Oklahoma secondary vocational home economics teachers who were currently teaching was obtained from the Oklahoma State Department of Vocational-Technical Education. Each name on the list was assigned a number from 1 to 482. A table of random numbers was utilized to select the desired sample size of 310 from the list. To begin the selection process,

a point on the table of random numbers was arbitrarily selected. From that point, names whose assigned numbers matched the random numbers were selected for the sample. The process was continued until the desired number of 310 individuals was selected for the sample.

Questionnaires were sent to those 310 teachers, and 143 responded. A follow-up questionnaire was sent to non-respondents, and 70 more responded. A total of 213 responses was received which was 68.7% of the sample.

Instrumentation

The questionnaire that was utilized in this study contained three parts. The first part consisted of the Adult Form of the Coopersmith Self-Esteem Inventory (Coopersmith, 1981). The second part was the Lee Classroom Interaction Inventory which was developed by the author, and the third part was a section which obtained demographic data.

Coopersmith Self-Esteem Inventory

The Coopersmith Self-Esteem Inventory (SEI) is designed to measure evaluative attitudes toward the self in social, academic, family, and personal areas of experience. In relation to the SEI, self-esteem refers to the evaluation an individual makes of himself/herself. Self-esteem is an expression of approval or disapproval, indicating the extent to which an individual views himself/herself as competent,

significant, successful, and worthy. In short, the self-esteem is an individual's personal judgment of worthiness.

The Adult Form of the SEI is an adaptation of the original School Form. The Adult Form is used with persons aged 16 and older and is usually self-administered. It consists of 25 trait-descriptive items (e.g., "I'm a lot of fun to be with.") to which the subject responds by checking either "like me" or "unlike me."

The self-esteem score is calculated by scoring negative items correct if they have been answered "unlike me" and positive items correct if they have been answered "like me." To arrive at the total score, the number of the self-esteem items answered correctly is summed and multiplied by four. This results in a maximum possible score of 100. There are no exact criteria for high, medium, and low levels of self-esteem, as these will vary with the characteristics of the sample. For the SEI, high scores correspond to high self-esteem.

The SEI was originally developed in conjunction with Coopersmith's (1967) extensive study of self-esteem in children. The major premise of the study was the belief that self-esteem is significantly related to feelings of personal worth and effective functioning.

Although adequate reliability has been shown to exist for the original School Form of the SEI, data are insufficient for the shorter Adult Form (Coopersmith, 1981). However, in one study of 103 college students, Bedeian, Geagud,

and Zmud (1977) reported Kuder-Richardson reliability estimates of .74 for males and .71 for females. In the same study, a test-retest reliability of .80 for males and .82 for females was reported. In the present study, Cronbach's alpha was calculated to estimate the internal consistency of the items on the SEI. A coefficient of .77 was obtained, indicating satisfactory reliability and internal consistency for the SEI items.

In terms of validity of the SEI, there are again insufficient data concerning the Adult Form. When 257 university students were assessed concerning their self-esteem, and comparisons were made with the Adjective Check List, Bedeian and Zmud (1977) found convergent validity to be weak. However, Crandall (cited in Coopersmith, 1981) found correlations of .59 and .60 between the SEI Adult Form and the Rosenberg scale for college students.

Lee Classroom Interaction Inventory

The Lee Classroom Interaction Inventory (LCII) was developed by the author to determine the kinds and amount of teacher classroom interaction exhibited by teachers. In relation to the LCII, teacher classroom interaction refers to approaches taken by teachers in initiating or responding to student communication.

The LCII was designed similar in format to the Adult Form of the Coopersmith SEI. The LCII, which is self-administered, contains 25 classroom trait-descriptive items

(e.g., "Students are encouraged to ask questions in class.") to which the teacher responds by checking either "like my classes" or "unlike my classes."

The LCII score is calculated in the same manner as the SEI Adult Form. Negative items are scored correctly if they have been answered "unlike my classes," and positive items are scored correctly if they have been answered "like my classes." The total score is obtained by adding the number of correct responses and multiplying by four. This results in a maximum possible score of 100. Higher scores correspond to greater amounts of teacher classroom interaction.

The items in the LCII were based on a review of the professional literature related to teacher effectiveness in terms of interaction with students, promotion of student academic achievement, and enhancement of student self-esteem. Instruments relating to effective teaching performance and interaction analysis were reviewed. The LCII was developed by converting the ideas in the literature into an inventory of items which portray teacher classroom interaction behaviors. For this study, the title of the instrument was omitted when the questionnaire was administered.

In terms of the LCII's validity, suggestions were accepted from committee members and statisticians. The LCII was first pilot-tested by three teachers representative of the population for the identification of common language usage, clarity, and its valid interpretation of the key concerns of the study. Then, to measure content validity, a

team of professors, who were perceived as expertly qualified educators, reviewed the LCII. The LCII was then revised to incorporate suggestions made by this team of experts. Generally, the suggestions related to the need for making the language of the instrument more explicit in order to preclude the possibility of misinterpretation.

In order to estimate the internal consistency of the items on the LCII, Cronbach's alpha was calculated from the data. A coefficient of .59 was obtained. Although Sonquist and Dunkelberg (1977) stated that a reliability level of .7 or .8 was desirable, they noted that reliability levels of .5 or .6 were generally adequate. Therefore, the alpha value of .59 indicated adequate reliability and internal consistency for the LCII items.

Demographic Information

The third part of the questionnaire requested demographic information in order to determine whether teacher self-esteem and classroom interaction varied according to selected teacher characteristics. Demographic information requested included age, years of teaching experience, and teacher's total enrollment.

Data Collection

A questionnaire, cover letter, and pre-addressed, postage-paid return envelope were mailed with a packet of materials from the Oklahoma Home Economics State Supervisor

in November, 1991, to the 310 Oklahoma secondary vocational home economics teachers in the sample. One hundred forty-three (46.1%) of the teachers responded. In January, the 167 teachers who had not responded were given a follow-up questionnaire and return envelope in a packet of materials they received at the State Home Economics Mid-Winter Conference. In addition, the Home Economics State Supervisor verbally encouraged these teachers to reply to the questionnaire; however, teachers incurred no negative repercussions if they chose not to participate in the study. As a result, 70 (41.4%) of these teachers completed the follow-up questionnaire. A total of 213 teachers responded to the questionnaire, which was 68.7% of the sample.

According to Kerlinger (1986), responses to mailed questionnaires are often poor and therefore may produce a biased sample. A non-response rate greater than 20 percent raises serious questions about sampling bias, suggesting that respondents may somehow be different from non-respondents (Isaac & Michael, 1981).

A correction technique recommended by Isaac and Michael (1981) is to randomly select a small sample of non-respondents and personally interview them to obtain the missing information. Analyzing this data would reveal any common characteristics among the non-respondents. However, Kerlinger (1986) noted that such a method was costly, time-consuming, and often ineffective. Instead, he recommended

obtaining information from outside sources and then comparing it with the data received from respondents.

In this study, a random sample of 25% of the 94 non-respondents was selected. The demographic data of these 24 non-respondents were compared to the demographic data of those who responded to the questionnaire. Based on this comparison, non-respondents appeared to be slightly older, slightly more experienced, and slightly more educated (Table I). The presence of differences this slight, however, does not seem to suggest that the sample obtained was biased.

Analysis of Data

Upon receiving the completed questionnaires, respondents' codes were compared to a master code list in order to keep a record of the returns. Data were entered directly from the questionnaires to the computer and then checked for accuracy.

The statistical analyses used in this study were based on the assumption that the data, although ordinal, approximated an interval measurement. Kerlinger (1986) noted that most researchers without hesitation use parametric tests with ordinal measures. He stated that "though most psychological scales are basically ordinal, we can with considerable assurance often assume equality of interval" (p. 402). Kerlinger further noted that the results obtained from using scales and assuming equal intervals were quite satisfactory.

TABLE I
COMPARISON OF RESPONDENTS AND A
SAMPLE OF NON-RESPONDENTS

| Variable | Respondents | | Non-Respondents | |
|-------------------------------------|-------------|--------------------|-----------------|--------------------|
| | Frequency | Percent | Frequency | Percent |
| Age | | | | |
| 20-29 | 23 | 10.8 | 2 | 8.3 |
| 30-39 | 87 | 40.8 | 6 | 25.0 |
| 40-49 | 78 | 36.6 | 12 | 50.0 |
| 50-59 | 20 | 9.4 | 4 | 16.7 |
| 60 and older | <u>5</u> | <u>2.3</u> | <u>0</u> | <u>0.0</u> |
| | 213 | 99.9 ^a | 24 | 100.0 |
| Years of Teaching Experience | | | | |
| 0-5 | 47 | 22.1 | 3 | 12.5 |
| 6-10 | 43 | 20.2 | 4 | 16.7 |
| 11-15 | 53 | 24.9 | 4 | 16.7 |
| 16-20 | 42 | 19.7 | 9 | 37.5 |
| 21-25 | 22 | 10.3 | 4 | 16.7 |
| 26 and above | <u>6</u> | <u>2.8</u> | <u>0</u> | <u>0.0</u> |
| | 213 | 100.0 | 24 | 100.1 ^a |
| Teacher's Total Enrollment | | | | |
| 1-25 | 14 | 6.6 | 2 | 8.3 |
| 26-50 | 41 | 19.2 | 6 | 25.0 |
| 51-75 | 61 | 28.6 | 4 | 16.7 |
| 76-100 | 64 | 30.0 | 7 | 29.2 |
| 101 and higher | <u>33</u> | <u>15.5</u> | <u>5</u> | <u>20.8</u> |
| | 213 | 99.9 ^a | 24 | 100.0 |
| Highest Degree | | | | |
| High School | 1 | 0.5 | 0 | 0.0 |
| Associate's | 2 | 0.9 | 0 | 0.0 |
| Bachelor's | 129 | 60.6 | 13 | 54.2 |
| Master's | 80 | 37.6 | 11 | 45.8 |
| Doctorate | <u>1</u> | <u>0.5</u> | <u>0</u> | <u>0.0</u> |
| | 213 | 100.1 ^a | 24 | 100.0 |

^aUnequal to 100.0 due to rounding

He therefore recommended that ordinal measurements be treated as though they were interval measurements, but that researchers be alert to the possibility of unequal intervals.

Apparently agreeing with that line of reasoning, several researchers have utilized parametric statistical analyses with the Coopersmith Self-Esteem Inventory (Cooper, 1986; Donnelly, 1990; Garabedian, 1980; Kearns, 1987; Utley, 1986). Statistical procedures such as the Pearson product-moment correlation coefficient, *t* test, analysis of variance, analysis of covariance, and Duncan's multiple range test were performed.

Considering the precedence set by other researchers and Kerlinger's (1986) recommendation that ordinal scales be treated as though they were interval measures, the data collected in this study were assumed to approximate interval level measurement. Other assumptions upon which the statistical analyses were based included a normally distributed population, homogeneity of variance, and independence of error components (Keppel, 1982).

The analysis of the data involved three phases. The first phase was concerned with determining whether differences existed between initial and follow-up respondents. During the second phase, factor analysis procedures were conducted to obtain factor loadings for inventory items. The third phase involved statistical analysis of the research objectives.

Comparison of Initial and Follow-up

Respondents

The t test is used to determine a significant difference between two sample means (Isaac & Michael, 1981). In this study, the t test was used to test for differences in the self-esteem and classroom interaction of teachers who responded to the initial mailing and those who responded to the follow-up questionnaire.

Factor Analysis Procedures

Factor analysis can be used to analyze patterns of intercorrelation among attitudinal items in order to isolate dimensions which account for these patterns of correlation (Isaac & Michael, 1981). In this study, factor analysis was conducted on the 25 items of the Coopersmith Self-Esteem Inventory and the 25 items of the Lee Classroom Interaction Inventory. The Statistical Analysis System (SAS) computer program which used the principal factors method to compute the factor pattern, variance explained by each factor, and communality estimates was utilized. For each set of items, the maximum number of factors was set at four, and the resulting factor loadings were then orthogonally rotated by Varimax procedures. A loading of .40 or higher was established as the criterion for including an item in a factor.

Analysis of Research Objectives

The Pearson product-moment correlation coefficient was used to assess the relationship between teacher self-esteem and teacher classroom interaction (Objective 1). The correlation showed the extent to which a teacher's self-esteem was related to his/her interaction with students in the classroom.

Analysis of variance was used to determine the significance of the differences among teachers' self-esteem as it related to teacher age, years of teaching experience, and total enrollment (Objective 2). Analysis of variance was also used to determine whether teacher classroom interaction varied according to teacher age, years of teaching experience, and total enrollment (Objective 3). Significant differences among the means of the behaviors were determined by using the Duncan multiple range test.

The preceding statistical procedures utilized the Statistical Analysis System (SAS) computer program, and analyses were conducted on an IBM compatible personal computer. A conservative estimate of probability ($p < .05$) was used.

Summary

Chapter III described the research design for the study, the population from which subjects were selected for the sample, the instruments that were used, the data collec-

tion method, and the statistical procedures used to analyze the data. Chapter IV presents the findings of the study.

CHAPTER IV

FINDINGS

The purpose of this research was to examine the relationship between home economics teachers' self-esteem and their classroom interaction and to determine whether teacher self-esteem and classroom interaction varied according to selected teacher characteristics. The objectives of this study were to: (1) assess the relationship between teacher self-esteem and teacher classroom interaction; (2) determine whether teacher self-esteem varied according to age, years of teaching experience, and teacher's total enrollment; and (3) determine whether teacher classroom interaction varied according to age, years of teaching experience, and teacher's total enrollment.

This chapter presents the findings of the study in the following order: (1) description of respondents, (2) comparison of initial and follow-up respondents, (3) factor analysis procedures, and (4) analysis of research objectives.

Description of Respondents

The sample for this study consisted of 310 secondary vocational home economics teachers who were teaching voca-

tional home economics at the secondary level in Oklahoma during the 1991-92 school year. Two hundred sixteen teachers (69.7%) voluntarily responded, and of these, 213 (68.7%) provided usable questionnaires. Of the three respondents who returned non-usable questionnaires, two returned incomplete questionnaires. The third declined to respond as she had recently replaced the teacher to whom the questionnaire had been sent.

Table II provides a description of the sample. The majority of the teachers (77.4%) were between the ages of 30-49. Twenty-five teachers (11.7%) were 50 and older, while 23 (10.8%) were 20-29 years of age.

Ninety teachers (42.3%) had 10 years or less of teaching experience, while 95 (44.6%) had 11-20 years of experience. Twenty-eight teachers (13.1%) had over 20 years of teaching experience.

The majority of teachers (58.6%) had a total enrollment of 51-100 students. Fifty-five teachers (25.8%) taught 50 or fewer students each day, while 33 teachers (15.5%) instructed 100 or more students daily. Computations revealed that the average number of students taught per group was 77, 34, and 111, respectively.

Although not one of the demographic variables in this study, the educational achievement of respondents was included in the questionnaire as a screening mechanism. Table III provides information regarding the educational achievement of the sample. The majority of the teachers

TABLE II
DESCRIPTION OF RESPONDENTS
(N=213)

| Variable | Frequency | Percent | Cumulative Percent |
|---|-----------|---------|-----------------------|
| Age | | | |
| 20-29 | 23 | 10.8 | 10.8 |
| 30-39 | 87 | 40.8 | 51.6 |
| 40-49 | 78 | 36.6 | 88.2 |
| 50-59 | 20 | 9.4 | 97.6 |
| 60 and older | 5 | 2.3 | 99.9 ^a |
| Years of Teaching Experience | | | |
| 0-5 | 47 | 22.1 | 22.1 |
| 6-10 | 43 | 20.2 | 42.3 |
| 11-15 | 53 | 24.9 | 67.2 |
| 16-20 | 42 | 19.7 | 86.9 |
| 21-25 | 22 | 10.3 | 97.2 |
| 26 and above | 6 | 2.8 | 100.0 |
| Teacher's Total Enrollment | | | |
| 1-25 | 14 | 6.6 | 6.6 |
| 26-50 | 41 | 19.2 | 25.8 |
| 51-75 | 61 | 28.6 | 54.4 |
| 76-100 | 64 | 30.0 | 84.4 |
| 101 and higher | 33 | 15.5 | 99.9 ^a |

^aUnequal to 100.0 due to rounding

(60.6%) held a bachelor's degree, while more than one-third (37.6%) had master's degrees. One teacher in the sample held a doctorate, while three, who were employed by vocational-technical schools, had not completed college degrees. However, these three teachers possessed appropriate occupational experience and therefore held provisional teaching certificates issued by the State Department of Education which allowed them to teach in occupational home economics programs. As stipulated by the provisional certification, all three teachers were working towards their bachelor degrees.

TABLE III
EDUCATIONAL ACHIEVEMENT OF RESPONDENTS
(N=213)

| Highest Level of Academic Achievement | Frequency | Percent | Cumulative Percent |
|---------------------------------------|-----------|---------|--------------------|
| High School Graduate | 1 | 0.5 | 0.5 |
| Associate's Degree | 2 | 0.9 | 1.4 |
| Bachelor's Degree | 129 | 60.6 | 62.0 |
| Master's Degree | 80 | 37.6 | 99.6 |
| Doctorate | 1 | 0.5 | 100.1 ^a |

^aUnequal to 100.0 due to rounding

Comparison of Initial and Follow-up Respondents

The demographic data of the initial respondents were compared to the demographic data of the follow-up respondents. Based on this comparison, follow-up respondents appeared to be slightly less experienced, were somewhat more educated, and had slightly larger enrollments (Table IV).

The t test was used to determine if there were differences between the self-esteem and classroom interaction of teachers who responded to the initial mailing and those who responded to the follow-up questionnaire. As Table V shows, 143 teachers responded to the first mailing of the questionnaire, and their mean self-esteem score was 80.50. The seventy teachers who responded to the follow-up questionnaire had a mean self-esteem score of 78.86, which was not significantly different from that of the initial respondents.

Table VI presents the classroom interaction mean scores for initial and follow-up respondents. Again there was no difference in the classroom interaction of teachers who responded to the first mailing and those who responded to the follow-up questionnaire.

Factor Analysis Procedures

Factor analysis was conducted to analyze patterns of intercorrelation among the items on the Coopersmith Self-

TABLE IV
COMPARISON OF INITIAL AND FOLLOW-UP
RESPONDENTS

| Variable | Initial | | Follow-Up | |
|-------------------------------------|-----------|--------------------|-----------|-------------------|
| | Frequency | Percent | Frequency | Percent |
| Age | | | | |
| 20-29 | 13 | 9.1 | 10 | 14.3 |
| 30-39 | 61 | 42.7 | 26 | 37.1 |
| 40-49 | 54 | 37.8 | 24 | 34.3 |
| 50-59 | 13 | 9.1 | 7 | 10.0 |
| 60 and older | <u>2</u> | <u>1.4</u> | <u>3</u> | <u>100.0</u> |
| | 143 | 100.1 ^a | 70 | 100.0 |
| Years of Teaching Experience | | | | |
| 0-5 | 32 | 22.4 | 15 | 21.4 |
| 6-10 | 24 | 16.8 | 19 | 27.1 |
| 11-15 | 37 | 25.9 | 16 | 22.9 |
| 16-20 | 27 | 18.9 | 15 | 21.4 |
| 21-25 | 19 | 13.3 | 3 | 4.3 |
| 26 and above | <u>4</u> | <u>2.8</u> | <u>2</u> | <u>2.9</u> |
| | 143 | 100.1 ^a | 70 | 100.0 |
| Teacher's Total Enrollment | | | | |
| 1-25 | 9 | 6.3 | 5 | 7.1 |
| 26-50 | 31 | 21.7 | 10 | 14.3 |
| 51-75 | 42 | 29.4 | 19 | 27.1 |
| 76-100 | 39 | 27.3 | 25 | 35.7 |
| 101 and higher | <u>22</u> | <u>15.4</u> | <u>11</u> | <u>15.7</u> |
| | 143 | 100.1 ^a | 70 | 99.9 ^a |
| Highest Degree | | | | |
| High School | 1 | 0.7 | 0 | 0.0 |
| Associate's | 1 | 0.7 | 1 | 1.4 |
| Bachelor's | 91 | 63.6 | 38 | 54.3 |
| Master's | 49 | 34.3 | 31 | 44.3 |
| Doctorate | <u>1</u> | <u>0.7</u> | <u>0</u> | <u>0.0</u> |
| | 143 | 100.0 | 70 | 100.0 |

^aUnequal to 100.0 due to rounding

TABLE V
T TEST FOR SELF-ESTEEM SCORES OF INITIAL
 AND FOLLOW-UP RESPONDENTS

(*N*=213)

| Respondents | Frequency | Mean |
|-------------|-----------|-------|
| Initial | 143 | 80.50 |
| Follow-up | 70 | 78.86 |

$t=.74, p=.46, df=211$

TABLE VI
T TEST FOR CLASSROOM INTERACTION SCORES
 OF INITIAL AND FOLLOW-UP RESPONDENTS

(*N*=213)

| Respondents | Frequency | Mean |
|-------------|-----------|-------|
| Initial | 143 | 88.14 |
| Follow-up | 70 | 88.34 |

$t=-0.17, p=.87, df=211$

Esteem Inventory and the Lee Classroom Interaction Inventory.

Self-Esteem Items

Factor analysis has been completed previously on the School Form of the Coopersmith Self-Esteem Inventory (SEI) which is a 58-item instrument to be used with students who are eight to fifteen years old. However, factor analysis data were not available for the Adult Form of the SEI, which was the form used in this study.

To evaluate the construct validity of the Adult Form of the SEI, factor analysis was conducted to investigate the dimensions measured by the inventory. Initial factor analysis on the 25 items of the SEI produced eight factors with eigenvalues greater than 1.0. Although factors with eigenvalues greater than one are sometimes retained, the maximum number of factors for this study was set at four to correspond to the four subscales perceived to exist on the School Form of the SEI. The resulting factor loadings were then orthogonally rotated using Varimax procedures. Items with a factor loading of .40 or higher were accepted as satisfactorily related to the construct. As a result, three of the four factors which emerged corresponded to three of the subscales in the School Form of the SEI. Factor 1 concerned self-esteem related to family, Factor 2 indicated general self-esteem, and Factor 3 related to social self-esteem. Only two items loaded satisfactorily with Factor 4, and gen-

erally, at least three items must register satisfactory loadings on a factor so that it can be given a meaningful interpretation (Isaac & Michael, 1981). Factor loadings for the items on the SEI are presented in Table VII.

Classroom Interaction Items

In order to evaluate the construct validity of the Lee Classroom Interaction Inventory (LCII), factor analysis was conducted on its 25 items to investigate the dimensions measured by the inventory. Initial factor analysis produced 10 factors with eigenvalues greater than 1.0, but as with the self-esteem inventory, the maximum number of factors was set at four to correspond to the four subscales perceived to exist on the LCII. The factor loadings were orthogonally rotated, and items with a loading of .40 or greater were accepted as satisfactorily related to the construct.

Table VIII presents the factor loadings for the items on the LCII. Factor 1 related to general classroom procedures, while Factor 2 indicated teacher spontaneity. Factor 3 concerned teacher-student interaction, and Factor 4 related to teacher control.

Analysis of Research Objectives

Three objectives were analyzed in this study. Objective 1 involved assessing the relationship between teacher self-esteem and teacher classroom interaction. Objective 2 concerned determining whether teacher self-esteem varied

TABLE VII
 FACTOR LOADINGS BY FACTOR AND ITEM ON
 THE COOPERSMITH SELF-ESTEEM
 INVENTORY

| Factor/Item | Loading |
|--|---------|
| Factor 1 | |
| 9. My family usually considers my feelings. | -.77 |
| 11. My family expects too much of me. | .66 |
| 12. It's pretty tough to be me. | .48 |
| 13. Things are all mixed up in my life. | .60 |
| 20. My family understands me. | -.77 |
| 22. I usually feel as if my family is pushing me. | .67 |
| Factor 2 | |
| 3. There are lots of things about myself I'd change. | .56 |
| 4. I can make up my mind without too much trouble. | -.44 |
| 6. I get upset easily at home. | .44 |
| 7. I take a long time to get used to anything new. | .41 |
| 15. I have a low opinion of myself. | .58 |
| 17. I often feel upset with my work. | .56 |
| 23. I often get discouraged with what I am doing. | .62 |
| 24. I often wish I were someone else. | .61 |
| Factor 3 | |
| 2. I find it very hard to talk in front of a group. | .54 |
| 8. I'm popular with persons my own age. | -.47 |
| 14. People usually follow my ideas. | -.60 |
| 18. I'm not as nice looking as most people. | .56 |
| 21. Most people are better liked than I am. | .41 |
| Factor 4 | |
| 5. I'm a lot of fun to be with. | -.65 |
| 16. There are times when I would like to leave home. | .62 |

Note. Using the criterion of a factor loading of .40 or above, items 1, 10, 19, and 25 did not load sufficiently so were not included in the factor designations; however, these items were included in the questionnaire.

TABLE VIII
 FACTOR LOADINGS BY FACTOR AND ITEM ON
 THE LEE CLASSROOM INTERACTION
 INVENTORY

| Factor/Item | Loading |
|--|---------|
| Factor 1 | |
| 2. Class is predominantly teacher-directed. | -.45 |
| 9. Limited opportunities for students to express ideas. | -.59 |
| 13. Teacher lecture is predominant teaching method. | -.42 |
| 14. Students are encouraged to express ideas orally. | .53 |
| 19. Teacher uses varied questioning techniques. | .52 |
| 22. Teacher remains at his/her desk most of class. | -.56 |
| 25. Teacher encourages students to challenge ideas. | .46 |
| Factor 2 | |
| 6. Students are expected to respond and participate. | .58 |
| 7. Verbal cues are used to assist students' responses. | .46 |
| 11. Teacher frequently checks for student understanding. | .56 |
| 15. Teacher frequently gestures during class. | .58 |
| 21. Teacher frequently laughs along with class. | .46 |
| Factor 3 | |
| 1. Students are encouraged to ask questions in class. | .51 |
| 12. Class discussions occur infrequently. | -.56 |
| 18. Teacher infrequently provides individual assistance. | -.50 |
| 24. Teacher maintains informal classroom atmosphere. | .55 |
| Factor 4 | |
| 10. Teacher maintains strict classroom environment. | .63 |
| 16. Students are not involved in lesson presentation. | -.54 |
| 23. Most in-class assignments completed individually. | .50 |

Note. Using the criterion of a factor loading of .40 or above, items 3, 4, 5, 8, 17, and 20 did not load sufficiently so were not included in the factor designations; however, these items were included in the questionnaire.

according to age, years of teaching experience, and total enrollment. Objective 3 involved determining whether teacher classroom interaction varied according to teacher age, years of teaching experience, and total enrollment.

Teacher Self-Esteem and Classroom
Interaction

Objective 1 of this study was to assess the relationship between teacher self-esteem and teacher classroom interaction. Teacher self-esteem was measured by the Coopersmith Self-Esteem Inventory, while teacher classroom interaction was measured by the Lee Classroom Interaction Inventory.

Mean scores for teacher self-esteem and classroom interaction are presented in Table IX. It can be noted that the mean score for teacher self-esteem (79.96) was lower than the mean score for teacher classroom interaction (88.21).

TABLE IX
MEAN SCORES ON THE COOPERSMITH SELF-
ESTEEM INVENTORY AND LEE CLASSROOM
INTERACTION INVENTORY

(N=213)

| Instrument | Frequency | Mean |
|-----------------------|-----------|-------|
| Self-Esteem Inventory | 213 | 79.96 |
| Interaction Inventory | 213 | 88.21 |

A frequency distribution of the teacher self-esteem scores is presented in Table X, while the frequency distribution of teacher classroom interaction scores is displayed in Table XI. The range of scores was greater for teacher self-esteem (16-100) than for teacher classroom interaction (40-100). In addition, approximately 85% of the teachers scored 84 or above on the interaction inventory, but only 56% scored that high on the self-esteem inventory.

Positive responses to items on the self-esteem inventory are listed in decreasing order of frequency in Table XII. A response was considered positive if it was answered: (1) "like me" when the item was positive (e.g., I'm a lot of fun to be with); or (2) "unlike me" when the item was negative (e.g., I get upset easily at home). Table XII indicates that a large majority of the teachers felt others could depend on them (97.2%), did not wish to be someone else (92.0%), did not have a low opinion of themselves (91.1%), and did not think about leaving home (90.1%). Such responses indicated high self-esteem. However, several teachers responded that they gave in easily (46.5%), things usually bothered them (43.2%), their families expected too much of them (35.2%), and they often felt upset with their work (30.5%). Responses such as these indicated low self-esteem.

Positive responses to items on the teacher classroom interaction inventory are listed in decreasing order of frequency in Table XIII. A response was considered positive if

TABLE X
 FREQUENCY DISTRIBUTION OF SCORES ON THE
 COOPERSMITH SELF-ESTEEM INVENTORY
 (N=213)

| Score | Frequency | Percent | Cumulative Percent |
|-------|-----------|---------|-----------------------|
| 16 | 1 | 0.5 | 0.5 |
| 36 | 2 | 0.9 | 1.4 |
| 40 | 1 | 0.5 | 1.9 |
| 48 | 6 | 2.8 | 4.7 |
| 52 | 6 | 2.8 | 7.5 |
| 56 | 7 | 3.3 | 10.8 |
| 60 | 7 | 3.3 | 14.1 |
| 64 | 9 | 4.2 | 18.3 |
| 68 | 8 | 3.8 | 22.1 |
| 72 | 16 | 7.5 | 29.6 |
| 76 | 15 | 7.0 | 36.6 |
| 80 | 15 | 7.0 | 43.6 |
| 84 | 30 | 14.1 | 57.7 |
| 88 | 30 | 14.1 | 71.8 |
| 92 | 21 | 9.9 | 81.7 |
| 96 | 28 | 13.1 | 94.8 |
| 100 | 11 | 5.2 | 100.0 |

TABLE XI
 FREQUENCY DISTRIBUTION OF SCORES ON THE
 LEE CLASSROOM INTERACTION INVENTORY
 (N=213)

| Score | Frequency | Percent | Cumulative Percent |
|-------|-----------|---------|-----------------------|
| 40 | 1 | 0.5 | 0.5 |
| 48 | 1 | 0.5 | 1.0 |
| 56 | 1 | 0.5 | 1.5 |
| 60 | 1 | 0.5 | 2.0 |
| 68 | 1 | 0.5 | 2.5 |
| 72 | 3 | 1.4 | 3.9 |
| 76 | 10 | 4.7 | 8.6 |
| 80 | 13 | 6.1 | 14.7 |
| 84 | 36 | 16.9 | 31.6 |
| 88 | 46 | 21.6 | 53.2 |
| 92 | 53 | 24.9 | 78.1 |
| 96 | 37 | 17.4 | 95.5 |
| 100 | 10 | 4.7 | 100.2 ^a |

^aUnequal to 100.0 due to rounding

TABLE XII
 POSITIVE RESPONSES TO ITEMS ON THE SELF-
 ESTEEM INVENTORY IN DECREASING ORDER OF
 FREQUENCY

(N=213)

| Item ^a | Response | | Percent Indicating Positive S-E |
|--|------------|--------------|---------------------------------------|
| | Like Me | Unlike Me | |
| 25. I can't be depended on. | 6 | 207 | 97.2 |
| 24. I wish I were someone else. | 17 | 196 | 92.0 |
| 15. I have a low opinion of self. | 19 | 194 | 91.1 |
| 16. There are times when I would like to leave home. | 21 | 192 | 90.1 |
| 13. Things are all mixed up in my life. | 24 | 189 | 88.7 |
| 21. Most people are better liked than I am. | 26 | 187 | 87.8 |
| 14. People follow my ideas. | 186 | 27 | 87.3 |
| 5. I'm a lot of fun to be with. | 184 | 29 | 86.4 |
| 8. I'm popular with my peers. | 183 | 30 | 85.9 |
| 9. My family usually considers my feelings. | 179 | 34 | 84.0 |
| 6. I get upset easily at home. | 38 | 175 | 82.2 |
| 20. My family understands me. | 175 | 38 | 82.2 |
| 22. I usually feel as if my family is pushing me. | 39 | 174 | 81.7 |
| 7. It takes me a long time to get used to anything new. | 41 | 172 | 80.8 |
| 18. I'm not as nice looking. | 41 | 172 | 80.8 |
| 12. It's pretty tough to be me. | 46 | 167 | 78.4 |
| 2. I find it very hard to talk in front of a group. | 48 | 165 | 77.5 |
| 4. I can make up my mind | 163 | 50 | 76.5 |
| 23. I often get discouraged. | 50 | 163 | 76.5 |
| 3. There are things about me I'd change if I could. | 55 | 158 | 74.2 |
| 19. If I have something to say, I say it. | 156 | 57 | 73.2 |
| 17. I often feel upset with my work. | 65 | 148 | 69.5 |
| 11. My family expects too much of me. | 75 | 138 | 64.8 |
| 1. Things don't bother me. | 121 | 92 | 56.8 |
| 10. I give in very easily. | 99 | 114 | 53.5 |

^aItems are abbreviated; see Appendix B for complete statements.

it was answered: (1) "like me" when the item was positive (e.g., Students are encouraged to express their ideas orally); or (2) "unlike me" when the item was negative (e.g., Class discussions occur infrequently). Over 90% of the teachers responded positively to 17 of the 25 items on the classroom interaction inventory, indicating that they engaged in a variety of listening, questioning, and nonverbal practices which promoted classroom interaction with students. Approximately one-third of the teachers reported that most in-class assignments were completed quietly and individually (31.9%) and that they maintained a strict, orderly classroom (35.7%), practices which reduce opportunities for classroom interaction. Only 32.4% of the teachers reported having classes which were not predominantly teacher-directed. This meant that 67.6% had classes which were predominantly teacher-directed, meaning opportunities for student input and interaction were lessened.

To determine the relationship between teacher self-esteem and teacher classroom interaction (Objective 1), the Pearson product-moment correlation coefficient was utilized. Table XIV indicates that there was a statistically significant positive correlation between teachers' self-esteem and their classroom interaction behaviors ($r = .16$). This indicated that there was a tendency for teachers with higher self-esteem to interact more with their classes than teachers with lower self-esteem.

TABLE XIII
 POSITIVE RESPONSES TO ITEMS ON THE
 INTERACTION INVENTORY IN
 DECREASING ORDER OF
 FREQUENCY

(N=213)

| Item ^a | Response | | Percent Indicating Positive S-E |
|--|--------------------|----------------------|---------------------------------------|
| | Like My Classes | Unlike My Classes | |
| 1. Students are encouraged to ask questions. | 212 | 1 | 99.5 |
| 4. Few opportunities exist for students to respond. | 2 | 211 | 99.1 |
| 8. Teacher rarely smiles during class. | 3 | 210 | 98.6 |
| 14. Students are encouraged to express ideas orally. | 210 | 3 | 98.6 |
| 3. Teacher listens to what students have to say. | 209 | 4 | 98.1 |
| 20. Teacher circulates during class. | 209 | 4 | 98.1 |
| 17. Teacher probes for correct responses. | 208 | 5 | 97.7 |
| 6. Students are expected to respond and participate. | 207 | 6 | 97.2 |
| 21. Teacher frequently laughs with class. | 205 | 8 | 96.2 |
| 5. Teacher maintains eye contact with students. | 203 | 10 | 95.3 |
| 24. Teacher maintains informal classroom atmosphere. | 202 | 11 | 94.8 |
| 11. Teacher frequently checks student understanding. | 201 | 12 | 94.4 |
| 7. Verbal cues are used to aid students' responses. | 200 | 13 | 93.9 |
| 9. Opportunities for students to express ideas orally are limited. | 1 | 198 | 93.0 |
| 22. Teacher remains at desk most of the class period. | 15 | 198 | 93.0 |
| 19. Teacher uses varied questioning techniques. | 196 | 17 | 92.0 |
| 25. Teacher encourages students to challenge ideas orally. | 196 | 17 | 92.0 |
| 15. Teacher gestures during class. | 188 | 25 | 88.3 |
| 18. Teacher infrequently assists individual students. | 36 | 177 | 83.1 |
| 13. Teacher lecture is the predominant teaching method. | 39 | 174 | 81.7 |
| 12. Class discussions occur infrequently. | 44 | 169 | 79.3 |

TABLE XIII (Continued)

| Item ^a | Response | | Percent Indicating Positive S-E |
|---|--------------------|----------------------|---------------------------------------|
| | Like My Classes | Unlike My Classes | |
| 16. Students are not involved in lesson presentation. | 50 | 163 | 76.5 |
| 23. Most in-class assignments are completed individually. | 68 | 145 | 68.1 |
| 10. Teacher maintains strict classroom. | 76 | 137 | 64.3 |
| 2. Class is predominantly teacher-directed. | 174 | 69 | 32.4 |

^aItems are abbreviated; see Appendix B for complete statements.

TABLE XIV

PEARSON R CORRELATION BETWEEN SCORES ON
THE COOPERSMITH SELF-ESTEEM INVENTORY
AND LEE CLASSROOM INTERACTION
INVENTORY

(N=213)

| <i>df</i> | <i>r</i> | Probability |
|-----------|------------------|-------------|
| 211 | .16 ^a | .02 |

^a $p < .05$

Teacher Self-Esteem and Selected Teacher
Characteristics

Analysis of variance and Duncan's multiple range test were conducted to determine whether differences among teach-

ers' self-esteem were related to their ages, years of teaching experience, and total enrollments and whether these differences were significant (Objective 2). Consequently, three separate analyses were conducted, relating each of the three demographic variables mentioned above to teacher self-esteem.

As Table XV shows, there were no significant differences in teachers' self-esteem according to their ages. Although a significant difference was not found, Duncan's multiple range test was conducted to identify any patterns that might exist concerning teacher self-esteem and age. Table XVI indicates that teachers who were 20-29 years old had the lowest mean self-esteem score (76.19). The self-esteem means increased with each successive age group, with teachers 60 years of age and older having the highest mean self-esteem score (88.00). For this sample of teachers, self-esteem increased as age increased.

TABLE XV
ANALYSIS OF VARIANCE FOR TEACHER SELF-
ESTEEM AND AGE

(N=213)

| Source of Variance | <i>df</i> | Sum of Squares | Mean Square | <i>F</i> | <i>p</i> |
|--------------------|-----------|----------------|-------------|----------|----------|
| Age | 4 | 1231.10 | 307.77 | 1.34 | .26 |
| Error | 208 | 47728.61 | 229.46 | | |
| Total | 212 | 48959.71 | | | |

TABLE XVI
TEACHER SELF-ESTEEM MEANS COMPARED
AMONG AGE GROUPS

(N=213)

| Age | Mean |
|--------------|-------|
| 20-29 | 76.16 |
| 30-39 | 78.96 |
| 40-49 | 80.48 |
| 50-59 | 84.80 |
| 60 and older | 88.00 |

The number of years of teaching experience a teacher possessed was not significantly related to his/her self-esteem (Table XVII). In addition, Duncan's multiple range test revealed no apparent patterns related to teacher self-esteem and years of teaching experience (Table XVIII). Teachers with 21-25 years of teaching experience had the lowest mean self-esteem score (75.28), while teachers with 26 or more years of experience had the highest mean self-esteem score (86.00).

A teacher's self-esteem was not significantly related to his/her total daily enrollment (Table XIX). Though not significant, there was a slight curvilinear pattern in relation to teacher self-esteem and total daily enrollment (Table XX). The mean self-esteem score was slightly higher for teachers whose total daily enrollment ranged from 1-25 students (82.57) and then decreased as enrollment increased

TABLE XVII
ANALYSIS OF VARIANCE FOR TEACHER
SELF-ESTEEM AND YEARS OF
TEACHING EXPERIENCE

(N=213)

| Source of Variance | df | Sum of Squares | Mean Square | F | p |
|---------------------|-----|----------------|-------------|------|-----|
| Teaching Experience | 5 | 1721.08 | 344.22 | 1.51 | .19 |
| Error | 207 | 47238.61 | 228.21 | | |
| Total | 212 | 48959.69 | | | |

TABLE XVIII
TEACHER SELF-ESTEEM MEANS COMPARED
AMONG TEACHING EXPERIENCE GROUPS

(N=213)

| Years of Teaching Experience | Mean |
|------------------------------|-------|
| 0-5 | 76.68 |
| 6-10 | 82.60 |
| 11-15 | 80.24 |
| 16-20 | 82.20 |
| 21-25 | 75.28 |
| 26 and above | 86.00 |

to 26-50 students per day (81.66). Teachers whose total daily enrollment ranged from 51-75 students possessed the lowest mean self-esteem score (76.33). Mean self-esteem scores increased as total daily enrollments increased to 76-100 students (80.44) and 101 or more students (82.54). Therefore, teacher self-esteem was highest for teachers with total daily enrollments of 1-25 students and teachers with 101 or more students per day. Self-esteem was lowest for teachers who taught 51-75 students each day.

TABLE XIX
ANALYSIS OF VARIANCE FOR TEACHER SELF-
ESTEEM AND TOTAL ENROLLMENT

(N=213)

| Source of Variance | <i>df</i> | Sum of Squares | Mean Square | <i>F</i> | <i>p</i> |
|----------------------------|-----------|----------------|-------------|----------|----------|
| Teacher's Total Enrollment | 4 | 1253.68 | 313.4 | 1.37 | .25 |
| Error | 208 | 47706.02 | 229.35 | | |
| Total | 212 | 48959.70 | | | |

In summary, then, a teacher's self-esteem was not significantly related to his/her age, years of teaching experience, or total enrollment.

TABLE XX
TEACHER SELF-ESTEEM MEANS COMPARED AMONG
TOTAL ENROLLMENT GROUPS

(N=213)

| Teacher's Total Enrollment | Mean |
|----------------------------|-------|
| 1-25 | 82.57 |
| 26-50 | 81.66 |
| 51-75 | 76.33 |
| 76-100 | 80.44 |
| 101 and higher | 82.54 |

Teacher Classroom Interaction and Selected Teacher Characteristics

Analysis of variance and Duncan's multiple range test were conducted to determine whether differences among teachers' classroom interaction were related to their ages, years of teaching experience, and total enrollments and whether these differences were significant (Objective 3). As a result, three separate analyses were conducted, relating each of the three demographic variables mentioned above to teacher classroom interaction behaviors.

There were no significant differences in teachers' classroom interaction behaviors in relation to their ages (Table XXI). Although no significant difference was found, Duncan's multiple range test was conducted to identify any patterns that might exist concerning teacher classroom

interaction behaviors and age. As Table XXII shows, teachers who were 20-29 years old had the lowest mean classroom interaction score (87.48). The classroom interaction means increased with each successive age group, with teachers 50 years of age and older having the highest mean scores (89.60). In this sample, teacher classroom interaction increased as teacher age increased.

TABLE XXI
ANALYSIS OF VARIANCE FOR TEACHER
CLASSROOM INTERACTION AND AGE

(N=213)

| Source of Variance | <i>df</i> | Sum of Squares | Mean Square | <i>F</i> | <i>p</i> |
|--------------------|-----------|----------------|-------------|----------|----------|
| Age | 4 | 69.29 | 17.32 | 0.25 | .91 |
| Error | 208 | 14305.62 | 68.78 | | |
| Total | 212 | 14374.91 | | | |

TABLE XXII
TEACHER CLASSROOM INTERACTION MEANS
COMPARED AMONG AGE GROUPS

(N=213)

| Age | Mean |
|--------------|-------|
| 20-29 | 87.48 |
| 30-39 | 87.91 |
| 40-49 | 88.31 |
| 50-59 | 89.60 |
| 60 and older | 89.60 |

Teachers' classroom interaction behaviors were not significantly related to the number of years of teaching experience they possessed (Table XXIII). Furthermore, Duncan's multiple range test revealed no apparent patterns related to teacher classroom interaction and years of teaching experience (Table XXIV). Teachers with 21-25 years of experience had the lowest mean classroom interaction score (85.27), while teachers with 16-20 years of experience had the highest mean classroom interaction score (89.72).

TABLE XXIII

ANALYSIS OF VARIANCE FOR TEACHER
CLASSROOM INTERACTION AND YEARS
OF TEACHING EXPERIENCE

(N=213)

| Source of Variance | <i>df</i> | Sum of Squares | Mean Square | <i>F</i> | <i>p</i> |
|---------------------|-----------|----------------|-------------|----------|----------|
| Teaching Experience | 5 | 378.10 | 75.62 | 1.12 | .35 |
| Error | 207 | 13996.81 | 67.62 | | |
| Total | 212 | 14374.91 | | | |

Teachers' total daily enrollment was not significantly related to their classroom interaction (Table XXV). Duncan's multiple range test identified no apparent patterns relating a teacher's classroom interaction behaviors to the

number of students he/she instructed each day (Table XXVI). Teachers who had the smallest total enrollments (1-25 students) had the highest mean interaction score (91.14). Teachers who instructed 26-50 students each day had the lowest mean interaction score (85.27).

TABLE XXIV
TEACHER CLASSROOM INTERACTION MEANS
COMPARED AMONG TEACHING
EXPERIENCE GROUPS

(N=213)

| Years of Teaching Experience | Mean |
|------------------------------|-------|
| 0-5 | 87.06 |
| 6-10 | 88.74 |
| 11-15 | 88.68 |
| 16-20 | 89.72 |
| 21-25 | 85.27 |
| 26 and above | 89.33 |

TABLE XXV
ANALYSIS OF VARIANCE FOR TEACHER
CLASSROOM INTERACTION AND
TOTAL ENROLLMENT

(N=213)

| Source of Variance | df | Sum of Squares | Mean Square | F | p |
|----------------------------|-----|----------------|-------------|------|-----|
| Teacher's Total Enrollment | 4 | 577.48 | 144.37 | 2.18 | .07 |
| Error | 208 | 13797.43 | 66.33 | | |
| Total | 212 | 14374.91 | | | |

TABLE XXVI
TEACHER CLASSROOM INTERACTION
MEANS COMPARED AMONG TOTAL
ENROLLMENT GROUPS

(N=213)

| Teacher's Total Enrollment | Mean |
|----------------------------|-------|
| 1-25 | 91.14 |
| 26-50 | 85.27 |
| 51-75 | 88.85 |
| 76-100 | 89.19 |
| 101 and higher | 87.52 |

In summary, then, a teacher's classroom interaction was not significantly related to his/her age, years of teaching experience, or total enrollment.

Teacher Self-Esteem, Classroom Interaction, and Educational Achievement

Although not one of the demographic variables in this study, the educational achievement of respondents was requested for screening purposes. Because only three teachers did not possess a college degree and only one held a doctorate, groups were reorganized to reflect only two categories: (1) teachers with a bachelor's degree or lower, and (2) teachers with a master's degree or higher.

Table XXVII indicates that teachers with a master's

degree or higher had a higher mean self-esteem score (80.44) than teachers with a bachelor's degree or less (79.67). The *t* test was used to determine if this difference was significant. As Table XXVIII shows, there were no significant differences in teachers' self-esteem in relation to their educational achievement.

As with self-esteem, teachers with a master's degree or higher had a higher mean interaction score (89.23) than those with a bachelor's degree or less (87.58) (Table XXIX). Again, the *t* test revealed that this difference was not significant (Table XXX). Teachers' classroom interaction behaviors were not significantly related to their educational achievement.

TABLE XXVII
TEACHER SELF-ESTEEM MEANS BY
EDUCATIONAL ACHIEVEMENT

(N=213)

| Level of Academic Achievement | Frequency | Mean |
|-------------------------------|-----------|-------|
| Bachelor's Degree or Lower | 132 | 79.67 |
| Master's Degree or Higher | 81 | 80.44 |

TABLE XXVIII

T TEST FOR SELF-ESTEEM SCORES BY
EDCATIONAL ACHIEVEMENT

(N=213)

| <i>df</i> | <i>t</i> | Probability |
|-----------|----------|-------------|
| 211 | .36 | .72 |

TABLE XXIX

TEACHER CLASSROOM INTERACTION MEANS
BY EDUCATIONAL ACHIEVEMENT

(N=213)

| Level of Academic Achievement | Frequency | Mean |
|-------------------------------|-----------|-------|
| Bachelor's Degree or Lower | 132 | 87.58 |
| Master's Degree or Higher | 81 | 89.23 |

TABLE XXX

T TEST FOR CLASSROOM INTERACTION SCORES
BY EDUCATIONAL ACHIEVEMENT

(N=213)

| <i>df</i> | <i>t</i> | Probability |
|-----------|----------|-------------|
| 211.0 | 1.43 | .15 |

Summary

The findings of this study revealed that there were no significant differences between the self-esteem and classroom interaction of initial and follow-up respondents. Factor analysis conducted on the Coopersmith Self-Esteem Inventory produced three factors which could be meaningfully interpreted. Four factors with adequate reliability emerged from factor analysis conducted on the Lee Classroom Interaction Inventory.

In analyzing the research objectives of the study, it was found that (1) there was a statistically significant positive correlation between teacher self-esteem and teacher classroom interaction; (2) there were no significant differences among teachers' self-esteem in relation to their ages, years of teaching experience, or total enrollments; and (3) there were no significant differences among teachers' classroom interaction in relation to their ages, years of teaching experience, or total enrollments. Finally, neither teacher self-esteem nor classroom interaction was significantly related to educational achievement.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study was conducted to examine the relationship between home economics teachers' self-esteem and their classroom interaction. This chapter includes a summary and discussion of the research, conclusions regarding the findings, and recommendations for further study.

Summary and Discussion

Objectives

The objectives of this study were to: (1) assess the relationship between teacher self-esteem and teacher classroom interaction; (2) determine whether teacher self-esteem varied according to teacher age, years of teaching experience, and total enrollment; and (3) determine whether teacher classroom interaction varied according to teacher age, years of teaching experience, and total enrollment.

Research Design

A descriptive research design was used in this study. Information concerning home economics teachers' existing

self-esteem, classroom interaction, and selected demographic characteristics was gathered, and associations among these conditions were investigated.

Population and Sample

The population for this study consisted of the 482 secondary vocational home economics teachers who were teaching vocational home economics at the secondary level in Oklahoma during the 1991-92 school year. A random sample of 310 of these teachers was selected for this study. Of this number, 213 teachers returned usable questionnaires, which represented a 68.7% response rate.

Instrument

The questionnaire that was utilized in this study contained three parts (Appendix B). The first part consisted of the Adult Form of the Coopersmith Self-Esteem Inventory (SEI) (Coopersmith, 1981) which measured home economics teachers' evaluative attitudes toward themselves. Previous research indicated that there were insufficient data regarding the validity and reliability of the Adult Form of the SEI. However, the calculation of Cronbach's alpha in this study indicated the instrument possessed satisfactory reliability.

The second part of the questionnaire was the Lee Classroom Interaction Inventory (LCII) which was designed to measure the kinds and amounts of interaction home economics

teachers exhibited in the classroom. The instrument was developed by the author after reviewing literature and instruments related to teacher effectiveness and interaction analysis. To validate the instrument, it was pilot tested on representative teachers and then critiqued by a panel of experts. Suggestions for improvement were incorporated into the instrument. Concerning reliability, Cronbach's alpha was calculated on the data, and the resulting coefficient indicated the instrument possessed adequate reliability.

The third part of the questionnaire dealt with demographic information, requesting teacher age, years of teaching experience, and total enrollment.

Data Collection

A questionnaire, cover letter, and pre-addressed, postage-paid return envelope were mailed with a packet of materials from the Oklahoma Home Economics State Supervisor to the 310 home economics teachers in the sample. For those who did not respond, a follow-up questionnaire and return envelope were placed in a packet of materials they received at the mid-winter conference. As a result, a total of 213 teachers returned usable questionnaires, which represented a 68.7% response rate. The sample's demographic data were compared to those of a sample of non-respondents, and in general, the two groups appeared to be similar.

Analysis of Data

The analysis of the data involved three phases. The first phase involved a comparison of initial and follow-up respondents. Demographic data were compared, and the *t* test was used to determine if there were differences in the self-esteem and classroom interaction of initial and follow-up respondents.

During phase two, factor analysis was conducted to investigate the dimensions measured by the self-esteem and classroom interaction inventories. Factor loadings were obtained, and constructs were interpreted.

In the third phase, Pearson's product-moment correlation coefficient, analysis of variance, and Duncan's multiple range test were conducted in order to analyze the objectives of the study. The Statistical Analysis System (SAS) computer program was used to conduct the data analysis. The statistical tests and their relationship to the objectives are presented in Table XXXI.

Discussion of the Results

Comparison of Initial and Follow-Up Respondents. The comparison of demographic data for initial and follow-up respondents indicated that follow-up respondents appeared to have slightly less teaching experience, slightly more education, and somewhat larger enrollments. Perhaps teachers with less teaching experience and larger enrollments

TABLE XXXI
SUMMARY OF ANALYSES

| Objective | Statistical Test | Conclusion |
|---|--|--|
| 1. To assess the relationship between teacher self-esteem and classroom interaction | Pearson's r | A positive correlation between teacher self-esteem and classroom interaction |
| 2. To determine whether teacher self-esteem varies according to: | ANOVA Duncan's Multiple Range | |
| a. age | | No significant relationship |
| b. years of teaching experience | | No significant relationship |
| c. total enrollment | | No significant relationship |
| 3. To determine whether teacher classroom interaction varies according to: | ANOVA Duncan's Multiple Range | |
| a. age | | No significant relationship |
| b. years of teaching experience | | No significant relationship |
| c. total enrollment relationship | | No significant relationship |

required more time in the management of their classes and therefore were less able to respond promptly to the questionnaire.

Green (1991) found that delayed response to a mailed questionnaire was associated with lower self-perception of the skill being examined. However in this study, results of a *t* test indicated that there were no significant differences in the self-esteem or classroom interaction of teachers who responded to the initial questionnaire and those who responded to the follow-up questionnaire.

Factor Analysis Procedures. Factor analysis on the Coopersmith Self-Esteem Inventory (SEI) items produced three factors which could be meaningfully interpreted. These factors, which corresponded to three of the subscales in the School Form of the SEI, were self-esteem related to family, general self-esteem, and social self-esteem. This study, then, confirmed the construct validity of three of the four subscales proposed by Coopersmith (1981) as measuring sources of self-esteem.

Four factors emerged from factor analysis on the Lee Classroom Interaction Inventory (LCII). These factors were identified as general classroom procedures, teacher spontaneity, teacher-student interaction, and teacher control. Six items on the LCII did not load satisfactorily, however, and therefore need further revision.

Analysis of Research Objectives. Objective 1 of this study was to assess the relationship between teacher self-esteem, as measured by the Coopersmith Self-Esteem Inventory, and classroom interaction, as measured by the Lee Classroom Interaction Inventory. In this study, the mean scores for teacher self-esteem were lower than the mean scores for teacher interaction. This seemed to indicate that even though some teachers possessed lower self-esteem, they continued to utilize the kinds of teaching behaviors that promoted interaction in the classroom.

Concerning responses to specific items on the self-esteem inventory, nearly all the teachers in this study described themselves as dependable and satisfied with themselves, indicating high self-esteem. However, nearly half also reported that they "gave in easily" and that "things usually bothered them," while approximately one-third were often upset with their work. Responses such as these not only indicated lower self-esteem but also raise serious questions concerning such teachers' abilities to provide an effective learning environment that enhances students' self-esteem.

Regarding responses to specific items on the classroom interaction inventory, a large majority of the teachers indicated they engaged in a variety of listening, questioning, and non-verbal practices which promoted classroom interaction with students. However, approximately one-third of the teachers in this study reported that they maintained

a strict, orderly classroom environment and required most in-class assignments to be completed quietly and individually, two practices which lessen opportunities for student input and classroom interaction. In addition, two-thirds of the teachers reported their classes were predominantly teacher-directed, a practice which directly opposed most of the other practices in which they engaged.

A significant positive correlation was found between teacher self-esteem and teacher classroom interaction, meaning that there was a tendency for teachers with higher self-esteem to interact more with their classes than teachers with lower self-esteem. This supported the findings of several researchers, including Trowbridge (1973), Doherty (1980), Tonelson (1981), Henjum (1983), and Whisler (1991), who found that teachers with higher self-esteem were more likely than teachers with lower self-esteem to engage in practices which promoted interaction in the classroom. However, Williams (1981) found no significant relationship between teacher self-esteem and teacher-student communication, indicating that teachers with higher self-esteem were no more likely than teachers with lower self-esteem to interact meaningfully with their students. Still, Williams' study appeared to be the exception, with most research finding a significant positive relationship between teacher self-esteem and teacher classroom interaction. In addition, researchers found that teachers with higher self-esteem were more likely than those with lower self-esteem to perform

effectively (Crane, 1979; Doherty, 1980), evaluate themselves accurately (Vukovich & Pheiffer, 1980), and enhance the self-esteem of their students (Reasoner & Gilberts, 1988; Silvernail, 1985). They were also healthier, less stressed (Doherty, 1980), and more productive in their work (Schultz & Hausafus, 1982). It seems, then, that in addition to increased classroom interaction, there are several more positive characteristics that are related to high teacher self-esteem.

Objective 2 of this study was to determine whether teacher self-esteem was related to age, years of teaching experience, and total enrollment. In this study, a significant relationship between teacher self-esteem and age was not found. However, though not significant, a pattern concerning teacher self-esteem and age was apparent. The youngest teachers, those in their twenties, had the lowest self-esteem means, and then self-esteem means increased with each successive age group, with teachers 60 years of age and older reporting the highest self-esteem. In this study, then, teacher self-esteem increased as age increased. This supported the findings of Trimakas and Nicolay (1974), who reported higher self-esteem in older age, and Kniveton (cited in Thomas, 1980), who found younger, female teachers to possess lower self-esteem than other age groups. However, other studies reported different results, such as no differences in self-esteem among different age groups (Erdwins, Mellinger, & Tyer, 1981; Wallach & Kogan, 1961);

higher self-esteem during the middle years (Jaquish & Ripple, 1981; Neugarten, 1968; Puglisi & Jackson, 1980); or lower self-esteem in older age (Puglisi & Jackson, 1980). Regarding the pattern of increasing self-esteem with increasing age, the teachers in this study may have been influenced by the fact that the questionnaires arrived along with other work-related correspondence from their state and district supervisors. Their responses, then, may have been influenced somewhat by their perceptions of their teaching competence, with younger teachers feeling less secure about their competence which resulted in a sense of lower self-esteem. Older teachers, on the other hand, may have felt more competent in their teaching, resulting in their higher self-esteem scores.

Like age, the number of years of teaching experience a teacher possessed was not significantly related to his/her self-esteem. In addition, no clear patterns regarding teacher self-esteem and years of teaching experience emerged. This finding was similar to Guskey's (1988) who also concluded that teaching experience was not related to teacher self-esteem. Although no significant differences were found and no patterns emerged, it can be noted that teachers with the highest self-esteem were those with the most teaching experience, in this case, 26 or more years of teaching experience. This supported Kowalski and Weaver's (1988) finding that outstanding teachers, those perceived as possessing certain characteristics typically associated with

higher self-esteem, were teachers who had several years of teaching experience.

As with age and years of teaching experience, a teacher's total enrollment was not significantly related to his/her self-esteem. However, though not significant, a slight curvilinear pattern concerning teacher self-esteem and total daily enrollment was apparent. The teachers with the smallest daily enrollments, those with 1-25 students, had the highest self-esteem. Self-esteem decreased somewhat for teachers with daily enrollments of 26-50 students, while teachers having enrollments of 51-75 students possessed the lowest self-esteem of the groups in this study. Teacher self-esteem increased as total daily enrollments increased to 76-100 students and then rose further as enrollments grew to 101 or more students. The highest self-esteem, then, was reported by teachers with the smallest and largest enrollments. The tendency for teachers with smaller enrollments to possess higher self-esteem supported findings by Beckner et al. (1978) that teachers with smaller class sizes possessed more positive self-esteem. Regarding the high self-esteem of teachers with the larger enrollments, perhaps these teachers, by necessity due to their larger class sizes, utilized superior organizational and management practices in their classrooms in order to provide an effective learning environment for students. Success and pride in providing such an environment may have influenced teachers'

responses to the self-esteem inventory, resulting in higher self-esteem scores for these teachers.

Objective 3 of this study was to determine whether teacher classroom interaction was related to age, years of teaching experience, and total enrollment. In this study, a significant relationship between teacher classroom interaction and age was not found. However, though not significant, a pattern concerning teacher classroom interaction and age was apparent. As with self-esteem and age, the youngest teachers, those in their twenties, had the lowest classroom interaction means, and then classroom interaction means increased with each successive age group, with teachers 60 years of age and older reporting the highest amount of classroom interaction. For the teachers in this study, classroom interaction increased as age increased. This pattern did not support Smith's (1965) suggestion that older teachers interacted less with their students than younger teachers. However, as experience and age are often positively correlated, it is likely that the older teachers in this study were also more experienced teachers. Perhaps, then, these older teachers felt more secure than the younger teachers about their teaching competence and were also more comfortable than younger teachers about interacting with their students.

Like age, the number of years of teaching experience a teacher possessed was not significantly related to his/her classroom interaction. In addition, no clear patterns

regarding teachers' classroom interaction and years of teaching experience were apparent. This supported Adams' (1982) finding that years of teaching experience were not significantly related to teaching styles, and therefore a teacher's classroom interaction behaviors. That is, teachers tended to utilize in their later years the same type of teaching style and interactive behaviors that they utilized in their early teaching years, possibly explaining in this study the lack of a pattern relating teacher classroom interaction and years of teaching experience.

As with age and years of teaching experience, a teacher's total enrollment was not significantly related to his/her classroom interaction. Furthermore, no apparent patterns relating a teacher's classroom interaction behaviors to the number of students he/she instructed each day emerged. This supported Robinson's (1990) finding that although sometimes more teacher interaction occurred in smaller rather than larger classes, at other times, there were no differences in the amount of teacher classroom interaction, regardless of enrollment size. In addition, Robinson found that teachers whose enrollments were substantially reduced did not change their teaching techniques to take advantage of the smaller classes. Robinson's conclusion supported Adams' (1982) previously mentioned finding that teachers generally do not readily adjust their teaching styles but continue to teach in their later years as they did in their early years of teaching, possibly explaining

why teacher classroom interaction and total enrollment were unrelated in this study.

Teachers' educational achievement, though not one of the demographic variables in this study, was requested for screening purposes. In this study, a significant relationship between teacher self-esteem and educational achievement was not found. In addition, teacher classroom interaction and educational achievement were not significantly related. However, the teachers with more education, those with a master's degree or higher, had slightly higher mean scores on both the self-esteem and classroom interaction inventories. This indicated that there was a tendency for teachers with higher educational achievement to possess higher self-esteem and to interact more in the classroom. Perhaps those teachers felt more competent in their teaching as a result of completing their advanced degrees and therefore possessed a higher sense of self-esteem and were more comfortable about interacting with their students.

Conclusions and Implications

Based on the results of this study, the following statements regarding the use of the questionnaire and the value of the research findings were made.

1. The Coopersmith Self-Esteem Inventory (SEI) seemed to be a good measure of self-esteem. However, more research utilizing the Adult Form of the SEI should be conducted in

order to further establish the instrument's validity and reliability.

2. The Lee Classroom Interaction Inventory seemed to be an adequate measure of self-reported teacher classroom interaction. It should be further refined, however, to improve its reliability. Factor loading values could also be improved which would then improve the instrument's construct validity.

3. The third part of the questionnaire adequately collected the desired demographic information. However, a few items need to be clarified in order to preclude misinterpretation by the respondents.

4. Regarding the collection of data, mailing the questionnaires along with materials from the state supervisor seemed to improve the response rate of teachers. However, due to the timing of the mailout, the teachers received the questionnaires just before Thanksgiving and were asked to respond between Thanksgiving and Christmas, an extremely busy time of year. Therefore, although the association of the questionnaire with the State Department of Vocational-Technical Education seemed to increase the response rate, the timing for receipt and return of the questionnaire also need to be considered carefully for optimum response.

5. Teacher self-esteem was found to be positively correlated with teacher classroom interaction, meaning that teachers with higher self-esteem were more likely than those with lower self-esteem to interact with their students. As

previous research indicated that both teacher self-esteem and teacher classroom interaction were related to teaching effectiveness, it seems reasonable that schools should make every effort to employ teachers with high self-esteem, as they are the type of teacher more likely to provide an effective learning environment for students. In addition, teacher educators need to be aware of the importance of teacher self-esteem to teaching effectiveness and make students aware of this importance, as well.

6. The differences in teacher self-esteem according to age, educational achievement, years of teaching experience, and total enrollment were not significant. It is possible, then, that teachers of all ages and with varying education, experience, and enrollments could possess low self-esteem. Therefore, self-esteem enhancement efforts should target all types of teachers.

7. The differences in teacher classroom interaction according to age, educational achievement, years of teaching experience, and total enrollment were not significant. Therefore, efforts to enhance teacher interaction skills, such as workshops and in-service programs, should target all types of teachers.

8. The importance of teacher self-esteem in the teaching-learning process cannot be overestimated. This study and other research have indicated that higher teacher self-esteem is related to increased classroom interaction and enhancement of student self-esteem, both of which are

related to teaching effectiveness. Considering its importance, teacher self-esteem should be enhanced and maintained in teacher education programs and school environments. Strategies to create an awareness of and enhance self-esteem should be included in teacher education programs, as well as in workshops and in-service programs for teachers.

9. Teacher classroom interaction is an important component of an effective learning environment. A teacher's ability to interact meaningfully with his/her class also enhances students' self-esteem. Considering its importance to a psychologically healthy learning environment, the development of interaction skills should be a necessary competency area in teacher education programs. Furthermore, the development of interaction skills for teachers should be promoted in the school environment through means such as workshops and in-service programs.

Recommendations for Further Research

This study was undertaken to determine significant associations in relation to teacher self-esteem and teacher classroom interaction. Further studies based upon the following recommendations should provide educators and administrators with data which would give further insight regarding teacher self-esteem and interaction skills.

1. This study was limited to home economics teachers in Oklahoma. Further similar studies should be conducted using teachers from other subject areas and states to pro-

vide a broader base of information regarding teacher self-esteem and classroom interaction.

2. Further studies of the relationships between teacher self-esteem or classroom interaction and additional variables not included in this study would indicate other aspects that were important to an understanding of teachers' self-esteem and their classroom interaction behaviors. Examples of such additional variables might be job satisfaction, personality characteristics, type and size of community in which the school was located, socio-economic status of students, physical condition of the teaching facilities, and availability of teaching resources.

3. The Lee Classroom Interaction Inventory should be evaluated in terms of the social desirability of the responses evoked. Because items on the instrument resemble those on evaluation checklists, the instrument should be examined to determine whether scores obtained reflect teachers' actual classroom interaction behaviors or behaviors teachers believe are the correct teaching behaviors in which to engage.

4. The Lee Classroom Interaction Inventory should be tested after items with unsatisfactory factor loadings were revised. The instrument should be used with a population similar to the one in this study in order to assess the effect of the revisions.

5. Further research in which data concerning teacher self-esteem and teacher interaction is collected by

researcher observation is desirable. This study assessed teachers' self-reported self-esteem and interaction behaviors, but further insight into teacher self-esteem and interaction behaviors might be gained through objective observation.

6. Further research concerning teacher self-esteem and teacher classroom interaction should be conducted to substantiate the importance of these two concepts in relation to teaching effectiveness.

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APPENDIXES

APPENDIX A
CORRESPONDENCE

March 6, 1991

Consulting Psychologists Press, Inc.
577 College Ave.
Palo Alto, CA 94306

Dear Sir:

I am a graduate student at Oklahoma State University. I am working on a doctoral dissertation concerning the relationship between home economics teachers' self-esteem and their classroom interaction behaviors. I am writing to ask your permission to use the Adult Form of the Coopersmith Self-Esteem Inventory to help me gather my data for my dissertation. I would be happy to provide you with a copy of my paper and results when I have completed the dissertation.

Sincerely,

Cheryl L. Lee
2601 Windmill Rd.
Edmond, Oklahoma 73013



Dear Customer:

You recently requested permission to "use" one of our tools. No permission is necessary if you wish to use the tool just as it is printed. You must be qualified, however, to purchase our materials. You may return the enclosed Qualification Form to register your qualifications with us. Please note that students require the co-signature of a supervising professor. If you have ordered from us previously, you may call Customer Service at (800) 624-1765 to place an order.

Permission is never given to copy (reproduce) a whole/partial tool as it is printed: you must purchase the tool. If you need to modify the tool in some way, you will need to send/fax us the following information before we can consider your request and determine the fee. You **MUST** have this written permission **BEFORE** beginning your project:

1. Exact test you wish to modify-including correct title, form, and edition.
2. Title of your project/dissertation/thesis.
3. Anticipated beginning and ending dates of your research.
4. Number of copies you will make (we grant permission, but you make the actual copies).
5. A copy of your proposed modification or a clear description if volume prohibits sending a copy.
6. Your **Customer Number** (if you have one) or your **advisor's co-signature** on your request letter or a completed **Qualification Form**.
7. The royalty is based on which test you use and the number of copies you make. The fee is generally not more than 66% of the retail price of the instrument. We cannot grant permission to use our material until we receive payment. You may pay with your Visa or MasterCard number and expiration date or official university Purchase Order (or P.O. number) if your school is paying the fee.
8. Your complete **name, address, and telephone/fax numbers**.

Please call our Permissions Department at (415) 969-8901 if you have any questions regarding this letter!

Sincerely,

Permissions Specialist

Enclosure: Qualification Form

APPENDIX B

QUESTIONNAIRE



Oklahoma State University

DEPARTMENT OF FAMILY RELATIONS
AND CHILD DEVELOPMENT
COLLEGE OF HOME ECONOMICS

STILLWATER, OKLAHOMA 74078-0337
241 HOME ECONOMICS WEST
(405) 744-5057

Oklahoma Vocational Home Economics Teachers:

Your responses concerning personal feelings and instructional behaviors are needed to further the research related to home economics instruction. Your state supervisory staff is assisting me in gathering information that may be helpful to you in improving instruction provided to Oklahoma home economics students.

Please take a few minutes to complete the enclosed questionnaire. Your responses will remain confidential, and I'll be happy to share the results, if requested. The completed questionnaire should be returned in the enclosed envelope by **Wednesday, November 27, 1991.**

Taking the time to complete this questionnaire exemplifies the professionalism of Oklahoma vocational home economics teachers. Thank you for your prompt response!

Sincerely,

Edna Ruth Mahaffey
State Supervisor
Home Economics Education
Oklahoma State Department
of Vocational-Technical Education

Cheryl L. Lee
Graduate Associate
Department of Family Relations
and Child Development
Oklahoma State University

jj

Enclosure

Coopersmith Inventory

Stanley Coopersmith, Ph.D.
University of California at Davis

Directions

On the other side of this form, you will find a list of statements about feelings. If a statement describes how you usually feel, put an X in the column "Like Me." If a statement does not describe how you usually feel, put an X in the column "Unlike Me." There are no right or wrong answers. Begin at the top of the page and mark all 25 statements.

- | Like
Me | Unlike
Me | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Things usually don't bother me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. I find it very hard to talk in front of a group. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. There are lots of things about myself I'd change if I could. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. I can make up my mind without too much trouble. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. I'm a lot of fun to be with. |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. I get upset easily at home. |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. It takes me a long time to get used to anything new. |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. I'm popular with persons my own age. |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. My family usually considers my feelings. |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. I give in very easily. |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. My family expects too much of me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. It's pretty tough to be me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. Things are all mixed up in my life. |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. People usually follow my ideas. |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. I have a low opinion of myself. |
| <input type="checkbox"/> | <input type="checkbox"/> | 16. There are many times when I would like to leave home. |
| <input type="checkbox"/> | <input type="checkbox"/> | 17. I often feel upset with my work. |
| <input type="checkbox"/> | <input type="checkbox"/> | 18. I'm not as nice looking as most people. |
| <input type="checkbox"/> | <input type="checkbox"/> | 19. If I have something to say, I usually say it. |
| <input type="checkbox"/> | <input type="checkbox"/> | 20. My family understands me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 21. Most people are better liked than I am. |
| <input type="checkbox"/> | <input type="checkbox"/> | 22. I usually feel as if my family is pushing me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 23. I often get discouraged with what I am doing. |
| <input type="checkbox"/> | <input type="checkbox"/> | 24. I often wish I were someone else. |
| <input type="checkbox"/> | <input type="checkbox"/> | 25. I can't be depended on. |

LEE CLASSROOM INTERACTION INVENTORY

If a statement generally describes your classes, put an X in the column "Like My Classes." If a statement does not describe your classes, put an X in the column "Unlike My Classes."

| Like My Classes | Unlike My Classes | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Students are encouraged to ask questions in class. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Class is predominantly teacher-directed. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. The teacher listens attentively to what students have to say. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Few opportunities exist for students to respond. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. The teacher continuously maintains eye contact with students. |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Students are expected to orally respond and participate during class. |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Verbal cues and prompts are used to assist the accuracy and frequency of the students' oral responses. |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. The teacher rarely smiles during class. |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Opportunities for students to express their ideas orally are limited. |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. The teacher maintains a strict, orderly classroom environment. |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. The teacher frequently asks questions to check student understanding. |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. Class discussions occur infrequently. |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. Teacher lecture is the predominant teaching method by which information is imparted to students. |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. Students are encouraged to express their ideas orally. |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. The teacher frequently gestures during class. |
| <input type="checkbox"/> | <input type="checkbox"/> | 16. In general, students are not involved in lesson presentation. |
| <input type="checkbox"/> | <input type="checkbox"/> | 17. When students provide incorrect or partial answers, the teacher probes for correct responses. |
| <input type="checkbox"/> | <input type="checkbox"/> | 18. The teacher infrequently provides assistance for individual students. |
| <input type="checkbox"/> | <input type="checkbox"/> | 19. The teacher uses varied questioning techniques to engage students. |
| <input type="checkbox"/> | <input type="checkbox"/> | 20. The teacher circulates among students during class. |
| <input type="checkbox"/> | <input type="checkbox"/> | 21. The teacher frequently laughs along with the class. |
| <input type="checkbox"/> | <input type="checkbox"/> | 22. The teacher remains at his/her desk or lectern during most of the class period. |
| <input type="checkbox"/> | <input type="checkbox"/> | 23. Most in-class assignments are completed quietly and individually. |
| <input type="checkbox"/> | <input type="checkbox"/> | 24. The teacher maintains an informal, personalized classroom atmosphere. |
| <input type="checkbox"/> | <input type="checkbox"/> | 25. The teacher encourages students to challenge ideas orally. |

General Information - Please provide the following information about yourself.

1. Age _____
2. Highest level of educational achievement
____ a. High School Graduate
____ b. Associate's Degree
____ c. Bachelor's Degree
____ d. Master's Degree
____ e. Doctorate
3. Number of years of teaching experience _____
4. Total number of students currently enrolled in your classes _____
5. In the school in which you teach, is your major teaching responsibility home economics?
yes _____ no _____

APPENDIX C

INSTITUTIONAL REVIEW BOARD APPROVAL

Institutional Review Board Statement

Federal regulations and Oklahoma State University policy require review and approval of all research studies that involve human subjects before investigators can begin their research. The Oklahoma State University Office of University Research Services and the Institutional Review Board (IRB) conduct this review to protect the rights and welfare of human subjects involved in biomedical and behavioral research. In compliance with the aforementioned policy, this study received the proper surveillance and was granted permission to continue. (See approval document in this appendix.)

**OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
FOR HUMAN SUBJECTS RESEARCH**

Proposal Title: The Relationship Between Oklahoma Home Economics Teachers' Self-Esteem and Their Classroom Interaction Behaviors.

Principal Investigator: Beulah Hirschlein

Date: 7-24-91 IRB # HE-92-001

This application has been reviewed by the IRB and

Processed as: Exempt Expedite Full Board Review
Renewal or Continuation

Approval Status Recommended by Reviewer(s):

Approved Deferred for Revision
Approved with Provision Disapproved

Approval status subject to review by full Institutional Review Board at next meeting, 2nd and 4th Thursday of each month.

Comments, Modifications/Conditions for Approval or Reason for Deferral or Disapproval:

Signature: *Marcia L. Tilley* Date: 8-23-91
Chair of Institutional Review Board

VITA²

Cheryl L. Lee

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE RELATIONSHIP BETWEEN OKLAHOMA HOME ECONOMICS
TEACHERS' SELF-ESTEEM AND THEIR CLASSROOM
INTERACTION

Major Field: Home Economics

Biographical:

Personal Data: Born in Watonga, Oklahoma, November 5,
1950, the daughter of Kenneth O. and Dorothy L.
Payne.

Education: Graduated from Watonga High School,
Watonga, Oklahoma, in May, 1969; received Bachelor
of Science Degree in Home Economics Education from
Oklahoma State University, Stillwater, Oklahoma,
in May, 1973; received Master of Science Degree in
Family Relations and Child Development from
Oklahoma State University, Stillwater, Oklahoma,
in July, 1977; completed requirements for the
Doctor of Philosophy Degree in Home Economics at
Oklahoma State University in May, 1992.

Professional Experience: Vocational Home Economics
Teacher, Wylie High School, Abilene, Texas,
August, 1975, to June, 1979; Vocational Home
Economics Teacher, Carver Junior High School,
Montgomery, Alabama, August, 1986, to June, 1989;
Graduate Associate, Oklahoma State University,
August, 1989, to May, 1990, and August, 1991, to
May, 1992.