A STUDY OF GRADUATE STUDENTS´ PERCEPTIONS OF CLASSROOM CLIMATE AS RELATED TO PROFESSOR´S BEHAVIOR, PROFESSOR´S GENDER, AND STUDENTS´ GENDER

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CHAPTER I

THE RESEARCH PROBLEM

Introduction

Most educators believe that classrooms have distinct atmospheres or climates that mediate growth (Moos, 1979). According to Kalis (1980), the climate is unique in each classroom and is determined by a combination of factors which interact to produce a certain type of climate. Withall (1949), for example, has pointed out that "it seemed to be a reasonable assumption that the teacher's behavior influenced the conditions of learning since that individual is placed in the classroom by society to manipulate the conditions so as to facilitate learning" (p. 347). Walberg (1969a) also felt that the teacher's personality and attitudes influence the climate of the classroom. He suggested that further research was needed regarding the extent to which the climate in a given classroom is a function of the personality of the teacher.

Moos (1980) believes that students in higher

education are a good source of information about a class. They have encountered a variety of learning environments, are in a class for many hours, and have enough time to form accurate impressions of the classroom. Although this may be true, Yamamoto, Thomas, and Karnes (1969) reviewed the literature and reported that they found little, if any, information on how pupils themselves perceive the school curriculum and personnel. According to Tuska and Jenks (1974), until around 1974 it was difficult to find studies which showed how the personality of the teacher influenced effectiveness at any given level.

Investigators who have focused on the climate in institutions of higher education have suggested that contact with outstanding teachers and particular classes that create intensive individual interest may have more influence on retention of students than other differences in the institutions (Moos, 1980). This is of particular interest, at this time, since the retention of students is a primary concern at most American colleges and universities. In a recent article by Gardiner and Nazari-Robati (1984) and in many other articles (Astin, 1975; Cope & Hannah, 1975; Everett & Stern 1979; Lea, Sedlacek & Stewart, 1979 &

Lenning, Sauer & Beal, 1980) the attrition and retention of students at American Colleges and universities have emerged as major areas of concern. According to Gardiner and Nazari-Robati (1980), Beal and Noel (1980) have conducted the most comprehensive study of college-student retention and have described the 49 programs that received the highest ratings. Relying heavily on Beal and Noel´s (1980) research, Lenning, Sauer, & Beal (1980) found that "rather than improving retention, per se, the primary goal should be to better meet student needs and to provide a more meaningful educational experience" (p. 16). They also identified a series of approaches aimed at improving student-faculty interaction which they believe is at the heart of all effective retention activities.

Statement of the Problem

The purpose of this study was to determine if classroom climate, as perceived by graduate students, is related to the interaction of the behavior rating of a professor, students´ gender, and the professor´s gender. The Purdue Rating Scale for Instruction (PRSI) was used to measure students´ perceptions of teachers on the following ten behavior traits: interest in the

subject, sympathy toward students, fairness in grading, liberal and progressive attitudes, presentation of subject matter, sense of proportion and humor, self-reliance and confidence, personal appearance, and ability to stimulate intellectual curiosity (Remmers & Weisbrodt, 1965).

Classroom climate was measured by the use of three scales, Cohesiveness, Favoritism, and Satisfaction, taken from the Learning Environment Inventory (LEI). According to Moos (1979b), the LEI is one of the most thoroughly researched and widely used instruments that measures educational environments (Walberg & Haertel, 1980). It contains 105 statements which describe typical school classes on the following scales: Cohesiveness, Diversity, Formality, Speed, Environment, Friction, Goal Direction, Favoritism, Cliqueness, Satisfaction, Disorganization, Difficulty, Apathy, Democractic, and Competitiveness (Fraser, Anderson & Walberg, 1982).

Background of Study

Social psychologists, according to Chavez (1984), were the first researchers who took an early interest in classroom behavior. Interactions between student

and student and between student and teacher were first studied by Thomas (1929). Her studies consisted largely of descriptive accounts of case histories and daily records. This type of low-inference measure was well established by the early sixties. It is relevant because it serves as a cornerstone for the development of a conceptual framework of classroom climate research (Chavez, 1984).

It was not until the 1950´s that the theoretical and empirical orientation for classroom climate research was generally accepted. These approaches were pioneered somewhat earlier primarily by Lewin´s (1936) field theory, Murry´s (1938) need-press model and Thelen´s (1950) educational dynamics model. According to Chavez (1984), Withall (1949) renamed the interactions between students and students and students and teachers as the "social emotional climate" (p. 240). Withall (1949) defined this group phenomenon as follows:

> . . . a general emotional factor which appears to be present in interactions occurring between individuals in face to face groups. It seems to have some relationship to the degree of acceptance expressed by members of a group regarding each other´s needs of goals.

> Operationally defined, it is considered to influence: 1) the inner private world of each individual; 2) the esprit de corps of a group; 3) the sense of meaningfulness of group and individual goals and activities; 4) the objectivity with which a problem is attacked; and 5) the kind and extent of interpersonal interaction in a group. (pp. 348-349)

In 1975, Fiedler found that the behavior of the students affects the behavior of the teachers and that interpersonal influence in the classroom is bidirectional. Fiedler concluded that a student with high anxiety in the classroom would probably not attempt to influence the teacher as frequently as those students without high anxiety. Murphy and Finnegan (1985) agreed with Fiedler that students can have a great deal of positive or negative impact on the total class atmosphere. They concluded that an effective teacher is one who can read the class and then be flexible enough to adjust to the situation.

Although students express a preference for same-gender instructors in course selection and satisfaction with course selection (Kaschak, 1978; Sternglanz and Lyberger-Ficek, 1977), there is little evidence that

women receive higher or lower marks from their students than do men (Elmore and LaPointe, 1974; Kulik and McKeachie, 1975; McKeachie, 1979). Bennett (1982) analyzed college student attitudes and found that male and female instructors are placed within a similar perceptual frame of reference. Women, however, were perceived as warmer and more potent individuals and were required by their students to offer greater interpersonal support. Male instructors who offer greater time and attention to students do not necessarily receive appreciation for their efforts. Students judge the accessibility and willingness of a male instructor more by how free they feel to approach him regardless of the degree to which they have actually turned to him for assistance and personal support (Bennett, 1982).

According to Moos (1979), increased understanding of within-classroom processes and the reciprocal influences between students and teachers is needed in studying individual differences in achievement and morale among students in the same class. It is his opinion that students' perceptions of the learning environment can help to inform teachers about variations in their interactions with students.

Teachers, therefore, need to be sensitized to these mutual influence processes and understand the effects that their students have on them. How individual students interpret conditions in the classroom can provide the clues in this regard. For example, those students who do not receive enough encouragement and praise from the teacher are likely to see the classroom environment as low in teacher support.

Statement of the Hypothesis

In view of the above-mentioned literature, it is hypothesized that there will be an interaction between students´ gender, professor´s gender and the behavior rating of a professor on students´ perceptions of the classroom environment. Specific research hypotheses are presented in Chapter IV, page 42.

Definitions

In order for the reader to better understand the terms used, the following words have been defined:

Classroom Climate

These climate properties include interpersonal relationships among pupils,

> relationships between pupils and their teacher, relationships between pupils and both the subject studied and the method of learning, and finally, pupils´ perceptions of the structural characteristics of the class. (Anderson, 1970, p. 135)

Favoritism

> Extent to which the teacher treats certain students more favorably than others (Fraser et al., 1982, p. 5).

Satisfaction

> Extent of enjoyment of class work (Fraser et al., 1982, p. 5).

Cohesiveness

> Extent to which students know, help, and are friendly toward each other (Fraser et al., 1982, p. 5).

Professor´s Behavior

The definition of the professor´s behavior is based on the students´ perceptions of the following ten

behavior traits contained in the Purdue Rating Scale for Instruction (© copyright by Purdue Research Foundation. Permission has been granted) concerning the instructor:

> 1) Interest in the Subject, 2) Sympathy toward Students, 3) Fairness in Grading, 4) Liberal and Progressive Attitudes, 5) Presentation of Subject Matter, 6) Sense of Proportion, 7) Humor, 8) Self-Reliance and Confidence, 9) Personal Appearance, and 10) Ability to Stimulate Intellectual Curiosity. (Remmers & Weisbrodt, 1965, p. 4)

Assumptions and Limitations

For the purpose of this study, the following assumptions were made:

1) The perceptions of graduate students in the College of Education at Oklahoma State University are an accurate measure of the classroom climate.

2) The graduate students accurately completed the survey instruments.

Generalization of the results of this study is provisional. Since the independent variables, professor's behavior, professor's gender and students'

gender are not controlled, a cause-effect situation should not be implied.

Organization of the Study

Chapter I contains an introduction and statement of the problem which explain why this study would be an important contribution to the literature. It also defines all the variables. Chapter II reviews the literature on college and university classroom climate, and how it is affected by the professor´s behavior, professor´s gender and the students´ gender. Chapter III discusses the methodology involved in the study including the subjects, instruments used, research design and the procedure followed to obtain the data.

CHAPTER II

REVIEW OF THE LITERATURE AND DEFINITIONS

The review of the literature in this chapter is presented in five sections which treat this researcher´s thesis from various perspectives. The definitions of classroom climate are considered first. This is followed by the various definitions which have evolved relating to professor´s behavior. The third section reviews the research on the relationship between classroom climate and professor´s behavior. The final two sections present the relationship between classroom climate and professor´s gender and the relationship between classroom climate and students´ gender.

Classroom Climate

Definitions

One of the earliest reseachers to define classroom climate was Withall (1949) who renamed the interactions between students and students and students and teachers as the "social emotional climate" (p. 348).

He defined this group phenomenon as:

> a general emotional factor which appears to be present in interactions occurring between individuals in face to face groups. It seems to have some relationship to the degree of acceptance expressed by members of a group regarding each other's needs or goals. Operationally defined, it is considered to influence: 1) the inner private world of each individual; (2) the esprit de corps of a group; (3) the sense of meaningfulness of group and individual goals and activities; (4) the objectivity with which a problem is attacked; and (5) the kind and extent of interpersonal interaction in a group. (pp. 348-349)

His definition includes activities that are emotional and intellectual on the one hand, and individual and social on the other. All of these definitions highlight the nature of the classroom environment (Withall, 1949).

Bovard (1951) expanded the definition of classroom climate to include group-centered or leader-centered activity. His definition of group-centered is having

"student-to-student verbal interaction . . . fostered by a number of specific techniques, such as seating students in a circle, and deflection of teacher-directed questions back to the group" (p. 215). Leader-centered is defined as having "student-to-student conversations . . . politely but firmly limited, and verbal interaction . . . channeled between teacher and individual student" (p. 215).

In contrast with Bovard´s approaches, Pace and Stern (1958) viewed a college classroom environment somewhat more broadly "as a system of pressures, practices and policies intended to influence the development of students toward the attainment of important goals of higher education" (p. 277).

The most recent definitions of classroom climate are those of Chavez (1984) and Blosser and Helgeson (1985). Chavez (1984) has defined the classroom climate as the "social-psychological environemnt of learning" (p. 256), while Blosser and Helgeson (1985) view the classroom environment as consisting of interactions among students and teachers, feelings between student and teacher, management techniques, and the actual teaching that occurs.

This research will use Anderson´s (1970)

definition of classroom climate which is contingent upon student and faculty relationships.

> These climate properties include interpersonal relationships among pupils, relationships between pupils and their teacher, relationships between pupils and both the subject studied and the method of learning, and finally, pupils' perceptions of the structural characteristics of the class. (Anderson, 1970, p. 135)

The Learning Environment Inventory (LEI) developed by Walberg (1968) consists of 15 scales in which each scale is designed to measure a student's perception of the various components of classroom climate. Each scale is considered as a separate score. The three scales chosen to measure the students' perceptions of classroom climate were Cohesiveness, Favoritism, and Satisfaction. Cohesiveness was defined as the "extent to which students know, help, and are friendly toward each other" (Fraser et al., 1982, p. 5). Cohesiveness was chosen by the researcher as one of the three scales since, according to Fraser (1982), classroom climate is contingent upon student and faculty relationships. According to Fraser, 1982:

> When several individuals interact for a period

> of time, a feeling of intimacy or cohesiveness may develop. This property separates members of a group from non-members, and has been found in research to relate to several class and course properties. For example, smaller classes were found to be more cohesive than were larger classes (Walberg, 1969a; Anderson & Walberg, 1972), classes of teachers inexperienced with a new course were perceived as more cohesive than those taught by teachers more familiar with the course (Anderson, Walberg & Welch, 1969), and history and English classes were found to be more cohesive than science classes (Anderson, 1971). Also class cohesiveness has been found consistently to be positively related to learning criteria. (p. 6)

Favoritism was defined as the "extent to which the teacher treats certain students more favorably than others" (Fraser et al., 1982, p. 5). Favoritism was chosen to be included as a scale since it assesses the amount of tension and quarrelling in a class (Fraser, 1982). "This scale is essentially a measure of negative effect and might be used to indicate whether given pupils have a low academic self concept" (Fraser

et al., p. 7). The scale of Satisfaction is defined as measuring the "extent of enjoyment of class work" (Fraser et al., 1982, p. 8). Satisfaction was the third variable chosen since it was found by Fraser (1982) that whether or not pupils like their class can be expected to affect their learning. Satisfaction has been found to be negatively related to class size (Walberg, 1969).

Professor Behavior

Definitions

Heilman and Armentrout (1936) were the first researchers to define what they considered to be important behavior traits of college professors. Their research identified the ten traits included below.

1) Interest in Subject, 2) Sympathetic Attitude Toward Students, 3) Fairness in Grading, 4) Liberal and Progressive Attitude, 5) Presentation of Subject Matter, 6) Sense of Proportion and Humor, 7) Self-reliance and Confidence, 8) Personal Peculiarities, 9) Personal Appearance, and 10) Stimulating

> Intellectual Curiosity. (p. 197)

Raths (1947) was the next important researcher to analyze the aspects of college teaching. He suggested six categories of operation as being extremely important in the teaching process. The categories are:

> 1) The clarifying operations: helping the student to clarify his thinking and planning; his attitudes, his values, his problems, his needs. 2) The security-giving operations: helping the student feel more secure in meeting the challenge of new and old learning situations. 3) The show-how operations: helping the student to a growing competency in skills necessary for intelligent living in our world. 4) The cultural-unifying operations: helping students to become more integrated and more friendly within the atmosphere of freedom to disagree. 5) The community-enriching operations: helping students to solve local community problems. 6) Operations based upon a cause and effect approach to learning. (p. 56)

Another approach was developed by Guthrie (1954)

who suggested that college students are highly influenced by the personal qualities of their teachers. Maslow and Zimmerman (1956) asked students to rate their teacher´s personality and their teacher´s ability on a scale ranging from very good to very poor. They found a correlation of .76 between good teaching and good personality.

Norman (1961) also devised a technique for assessing college teacher behavior. His technique used peer-group nominations on 20 individual bipolar scales which are combined to yield scores on five personality factors. The factors are:

1) Surgency (assertive, frank, energetic, talkative, etc.)

2) Agreeableness (cooperative, attentive, mild mannered, not jealous, etc.)

3) Dependability (responsible, conscientious, orderly, etc.)

4) Emotional Stability (calm, poised, in control of emotions, etc.)

5) Culture (artistic, polished, imaginative, effectively intelligent, etc.). (p. 1)

Hoffman (1963) believed that the attribute of a teacher´s behavior which students seemed to appreciate

more than any other was the teacher's attitude toward students.

> His ability to see them and treat them as individuals, his interest in them as human beings, understanding of their academic and personal problems, willingness to help poor students, readiness to give advice, time, encouragement -- these qualities in the teacher made a deeper impression than any others. (p. 21)

Astin (1965) defined the professor's behavior in terms of knowing students' names, calling students by their first names, taking roll, having students as guests in his home, speaking voice, having a good sense of humor, and being dull or enthusiastic.

A different view of teacher behavior was taken by Solomon (1966) who found that "clear and expressive" teacher behavior was found to be related to student gains in factual knowledge; "energetic and flamboyant" teacher behavior related to student gains in comprehension; and "clear, expressive" and "warm" teacher behavior related to positive student evaluations. Along these same lines, Feldman (1974) found that the characteristics most frequently chosen

by college students when they describe their ideal or best teachers were friendliness, including concern and respect for students, helpfulness, and openness to others' opinions by encouraging class questions and discussion and dimensions primarily involving the teaching task of the instructor in the role of interactor or reciprocator.

Rosenshine and Furst (1973), in a very comprehensive review of studies on teaching behaviors, concluded that optimum learning takes place when the following eight teaching characteristics are present: clarity, variability in teaching methods and materials, enthusiasm, task-oriented behavior, indirectness (encourages participation, increases student ideas, and reduces limits), student opportunity to learn the material, teacher use of structuring comments, and multiple levels of questions or cognitive discourse. Teacher criticism was found to be negatively related to student learning.

Umble and Whitten (1977) identified six interpretable dimensions of teaching behavior using 212 College of Business students at the University of Georgia as their sample. The dimensions identified were: 1) Professional Competency, 2) Potency-

Difficulty, 3) Professional Behavior, 4) Classroom Personality, 5) Receptivity, and 6) Motivation-Activity.

According to Blai (1982), experts have not yet reached concensus as to what constitutes good teaching. Whatever one group of theorists say is good, another group disagrees with. Blai undertook his study to seek a closer identification between instructors and students as to what constitutes good teaching resulting in a better teaching-learning situation. His findings indicate that the following instructor traits are extremely important: 1) Expert knowledge of subject, 2) Ability to stimulate student interest, 3) Enthusiastic attitude, 4) Ability to explain clearly, and 5) Systematic organization of subject matter.

The definition of professor's behavior to be used in this study is based on students' perceptions of the following ten behavior traits as theorized by Remmers and Weisbrodt (1965) in the Purdue Rating Scale for Instruction (PRSI).

1) Interest in the Subject, 2) Sympathy toward Students, 3) Fairness in Grading, 4) Liberal and Progressive Attitudes, 5) Presentation of Subject

> Matter, 6) Sense of Proportion, 7) Humor, 8) Self-Reliance and Confidence, 9) Personal Appearance, and 10) Ability to Stimulate Intellectual Curiosity. (p. 4)

Relationship Between Classroom Climate and Professor's Behavior

Withall (1949) believed that teacher's interactions were much more important than students' interactions. He believed that it should be possible to measure socio-emotional climate in terms of teacher behavior alone. In accord with this belief, he developed the following seven categories to encompass all types of statements that teachers use in classrooms:

> a) learner-supportive, b) acceptant and clarifying, c) problem-structuring, d) neutral, e) directive or hortative, f) reproving or deprecating, g) teacher self-supporting. (p. 349)

According to Withall (1949), categories a, b, and c were learner-centered and categories e, f, and g were teacher centered. Teachers elicit patterns of verbal behavior that determine whether they are learner- or teacher-centered. If the number of category c

responses outnumbered those of a and b combined then the teacher was said to be more problem-centered than learner- or teacher-centered.

In 1951 Bovard undertook a study to determine whether Black, Jewish and Catholic student veterans, and students from a wide range of socio-economic backgrounds would develop a cohesive group in a classroom by allowing verbal interaction among them to occur. He found that the amount of social interaction in the classroom, which is encouraged by the behavior of the teacher, influences the individual student's perceptions, feelings, and interpersonal relations, and perhaps even the student's personality development. Bovard (1951), therefore, believes that a group-centered classroom climate is more amenable to more students than a leader-centered classroom climate.

Pace and Stern (1958) studied several different college classroom environments and found significant differences in the influence of the environment, such as what must be faced and dealt with by the students. In a second study, Stern (1963) found that in a "high" intellectual climate faculty members put a lot of energy and enthusiasm into their teaching. In class discussions, papers and exams, the main emphasis is on

breadth of understanding, perspective, and critical judgement. In such an environment a report can rate an A grade even though a student´s viewpoint is opposed to the professor´s. Students do not just admit they were wrong, they often argue with the professor to clarify a different view. The students´ social relationships outside the classroom include professors who really talk with the students, not just at them. Students are encouraged to be independent and individualistic. According to Stern (1963), in a "high" intellectual climate, students take no particular pride in their personal appearance. Scholarly interests are emphasized as an end in themselves and richer cultural opportunities are provided. Faculty and student relationships are more intimate and less likely to be confined to bureaucratic details. In a "low" intellectual climate, few classes ever meet out of doors on nice days. Few people know the "snap" courses to take or the tough ones to avoid (Stern, 1963).

Hoffman (1963) defined teaching behavior according to what Hofstra College seniors thought were good teachers. The seniors responded to an evaluative form designed to help the administration select the recipient of the annual outstanding-teacher award.

> . . . creation of classroom climate was advanced as significant by a fair number of students. Implicit in most of the remarks was the assumption that learning can and should be fun; relaxation, joy, pleasurable anticipation are all desirable, if not essential concomitants of learning. (p. 24)

Walberg (1969) has also shown that teacher personality is related to classroom climate. Patterns of climate that are perceived by students appear to be associated with several kinds of tensions in the teacher´s personality. Teachers who have needs to interact with others, both aggressively and affiliatively, tend to have controlled, goal-directed classes. The teacher may monopolize the affective interaction of the groups causing students to feel less personal intimacy with one another. There, according to Walberg (1969), the personality patterns of the teachers, their needs, values, and attitudes, predict the climate of their classes.

Gullette (1984) believes that those involved with the improvement of teaching on the college level should try to show teachers how to create environments in which the most learning takes place, with increased

pleasure for everyone concerned. "Everyone, starting with the teacher, has to feel free to say ´I don´t know, but I can find out.´ Everything changes in this atmosphere: correction is made in a different tone, or not by the teacher" (p. 48).

Kulieke and Menges (1984) interviewed 58 college undergraduates concerning classroom incidents which left them feeling satisfied and incidents which left them feeling dissatisfied. They found that

> Satisfactory incidents occurred in classes where features, such as teacher role and classroom climate, were consistently related. Such consistency was not found in classes where unsatisfactory incidents occured. (p. 255)

Their study identified five variables which differentiated between satisfactory and unsatisfactory incidents. The first variable was classroom climate, the second was the role of the instructor followed by format of the class, who decided what was to be learned, and who decided how the material was to be learned. Casual observations of classrooms showed that students are in passive roles most of the time. Most students have little opportunity to choose what they will study

in a course or to influence the processes of instruction and evaluation (Kulieke & Menges, 1984). Even when students at both the undergraduate and graduate levels report considerable dissatisfaction, they are passive in attempting to chage what occurs in the classroom (Jamieson & Thomas, 1974).

One of the important questions that must be considered in improving classroom climate is, "What kinds of classroom environments will promote creativity?" (DeRoche, 1972, p. 134). DeRoche (1972) believes that students interact with ideas, and information, classmates and teachers either add to or subtract from their uniqueness. If the learners continually think of themselves as incapable, they will use defense mechanisms such as anger, aggression, and regression to a much greater extent. According to DeRoche (1972), the creative process involves thinking. It falls within the teacher´s realm to initiate and develop the thinking processes of their students. Eisner (1962) defines "divergent" thinking as they type that most characterizes creativity. It is the thinking that is speculative, that just takes off from information already possessed.

DeRoche (1972) is convinced that learning and

creativity are inseparable functions. All individuals in varying degrees possess the abilities involved in being creative. These abilities can be improved through education which is the function of a college or university. In order to prepare teachers to teach creatively, as much time and energy must be spent in personal development as is now being spent in technology and program development.

Blosser and Helgeson (1985) examined the classroom climate in the science classroom. The Learning Environment Inventory (LEI) was used to measure the students´ perceptions of the various components of the classroom environment. The researchers found that the atmosphere and environment in which students encounter science affects students´ attitudes toward science and their achievement in science. The interaction between students and students, students and teachers and students and subject matter represent significant variables in the education process.

Relationship Between Classroom Climate and Professor´s Gender

In 1971, Anderson (1971) found that teacher gender

is not related to pupil's perceptions of the learning climate within their classes. He stated, however, that "whether this result will withstand the test of additional data can only be speculated here" (p. 661). Walberg (1968) showed that teacher personality is related to classroom climate, and since personality is related to gender, a relationship between teacher gender and classroom climate may well be found in future studies.

In a study involving students' values and their ratings of a university professor, Null (1972) discovered that only a few values are related to ratings by college students of one or more dimensions of instructor behavior. Gender and the grade expected in the course had a main effect on the evaluation of several of these behavioral characteristics.

Elmore and LaPointe (1974) found no interactions between faculty gender and student gender on the evaluation of college instructors. There were no differences between the mean ratings given male and female faculty by male and female students. Female students, however, rated instructors higher on specified objectives of the course. Goebel and Cashen (1979) found that across all levels, including higher

education, gender of the teacher was a more influential factor at grades 11 and college freshmen. Bray and Howard (1980) found that androgynous teachers received higher evaluations that masculine or feminine counterparts.

Macke and others (1980) believe that to the extent that females in authority positions retain a traditional feminine style of communication they may be judged incompetent by significant others. To the extent that they adopt traditional masculine styles of communication, they are judged abrasive and domineering. Both alternatives leave an unfavorable impression. Macke and others (1980) also examined women's behavior in the university classroom. They investigated the teaching styles of male and female professors and student reactions to the differences between them. Important gender differences in the management of classroom authority was found. The women used less direct, harsh, offensive means of dealing with students than male professors. They also gave considerably more subject-matter authority to their students than male professors. Women were perceived to be as competent as men regardless of their teaching strategies. They made more positive attempts to relate

to their students in a personal way, talking more about their personal lives and problems with students. Male professors tended to discuss their careers and credentials rather than more personal topics (Macke et al., 1980).

An analysis of college student attitudes by Bennett (1982) indicated that male and female instructors are placed within a similar perceptual frame of reference. Women, however, were perceived as warmer and more potent individuals and were required by their students to offer greater interpersonal support. Men who did offer greater time and attention to students were not necessarily appreciated for their efforts. Students judged the accessibility and willingness of a male instructor more by how free they felt to approach him, regardless of the degree to which they have actually turned to him for assistance and personal support. Bennett's (1982) study suggested that students are less tolerant of female instructors in a number of ways. For example, those women who are not perceived as being charismatic, experienced, and professional in instructional style are unlikely to be accepted as offering authoritatively balanced instruction. Also, students clearly demanded a higher

standard of formal preparation and organization from female instructors.

In 1983 Basow (1983) investigated the interaction between teacher expressiveness, teacher gender and student gender on 121 college students in a small, private college in the Northeastern United States. Students viewed a videotape of a male or female actor. The actor gave a short lecture using either expressive or nonexpressive communication. The results showed that the nonexpressive male teacher received very low ratings on two factors: organization and stimulating interest. His students also had the poorest performance on the achievement test. On the other hand, students who watched a nonexpressive female teacher had the highest achievement. The expressive female teacher received the highest student evaluations. Female and male students reacted to the instructors in similar ways; female students, however, tended to view all professors as more organized than did male students.

Tieman and Rankin-Ullock (1985) found that male college students gave their professors lower faculty ratings than female students, but their ratings for female faculty were high regardless of the field. Female students showed a bias against women faculty in

traditionally feminine fields. They were very supportive of women faculty in nontraditional fields, however.

The Relationship Between the Classroom Climate and Students´ Gender

As far back as 1937, Moore (1937) undertook a study to determine what college professors´ behavior annoyed college students and to what extent sexual differences played a part in the college student´s evaluation of the annoying behavior. The subjects for the study were 229 college men and women distributed among four colleges in four states. The results of the survey indicated that students were considerably more annoyed by a teacher´s rambling while lecturing than by any one of several other annoying habits, such as ridiculing students or "raking students over the coals." Moore (1937) found no significant sexual differences in the students´ rating of their professor´s most annoying habits.

Many of the variables that contribute to the atmosphere of the classroom have been studied. Both Remmers (1963) and Ehman (1970) found that students´

observations provide an accurate picture of the classroom environment. In this regard, Haertel et al. (1981) in a meta-analysis, showed that the predictability of students' cognitive, affective, and behavioral outcomes are related to students' perceptions of psycho-social characteristics in the classroom. This was also confirmed by McKeachie et al. (1971) who found that what a student has achieved in a course is to some degree reflected in his rating of his instructor. They noted that female students perceive relational dimensions as an important part of the classroom. Lending support for this view, Elmore and LaPointe (1975) found a significant interaction between student sex and faculty sex on the question of whether or not the professor showed an interest in the students. Female students rated female teachers significantly higher than male teachers on this trait. These researchers, however, found no significant interactions between teacher sex, student sex and teacher warmth, or between student sex and teacher warmth.

Guyot et al. (1980) studied human territoriality which is defined as:

the consistent usage or occupancy of a spacial

location for a specific interval of time by a person or group. (p. 122).

They found that a majority of the 58 college students (29 females, 29 males) used in their study chose to sit in the same seat in a classroom at least 91 percent of the time. The reasons for this, according to the students, were for security, a sense of control, prediction, and identity. It was also found that female students ranked security higher in importance than males.

Rosenfeld (1983), in analyzing data from a study concerning communication climate and coping mechanisms in the college classroom, discovered that 1) liked classes have a more supportive and less defensive communication climate than disliked classes, and 2) student behavior in classes with a defensive communication climate is characterized by the use of coping mechanisms such as daydreaming and forming alliances with students.

Berg and Ferber (1983) reported the most significant difference that emerged between men and women graduate students was in their interaction with men and women faculty. According to Berg and Ferber (1983), 78 percent of the male students in their study

reported that they had come to know at least one male faculty member quite well, compared to only 54 percent of the female respondents. When asked how many female faculty members they had come to know quite well, 20 percent of the men and 33 percent of the women answered one or more.

Since the number of college women majoring in economics continues to be low in all educational levels, Ferber (1984) undertook a study in order to find out how to improve the classroom climate for women in economics courses. He concluded that improved teacher-student relations may well result in better performance by women. The fields of social studies and women´s studies were also investigated by Martin (1984). He found that male students judged female social studies instructors´ competence more on the basis of attributes associated with feminine behavior such as warmth, rather than on masculine attributes such as assertiveness.

CHAPTER III

RESEARCH METHODOLOGY

Introduction

This chapter describes the methods, research design, and procedures of this study. The study developed out of an interest in the classroom climate and how it is affected by the professor´s behavior, professor´s gender, and students´ gender. It was the purpose of this study to examine whether the professor´s behavior, professor´s gender, and students´ gender affect graduate students´ perceptions of the classroom climate. These topics are included on the following pages: 1) description of subjects, 2) instrumentation, 3) research design, 4) procedure, and 5) statistical analysis.

Method

Subjects

The 200 subjects for this study were randomly selected, using a table of random numbers, from the graduate resident classes offered in the College of

Education at Oklahoma State University. The number of subjects provided a power of .80 given an effect size of .25 (large difference) and an alpha level of .05

Male students were asked to fill out an instrument with a blue top sheet while female students were asked to fill out an instrument with a white top sheet. In the top, right-hand corner of each white or blue sheet, the student was assigned a professor by gender and behavior (i.e. either an excellent or a poor professor). Each student was then directed to think back and choose a college professor he/she had whom he/she perceived as fitting that specified description. Keeping that professor in mind, the students were asked to answer the questions on the Purdue Rating Scale for Instruction as well as the Learning Environment Inventory. The following eight groups were consequently formed: 1) Male students who remembered a male professor as being an excellent instructor, 2) Male students who remembered a male professor as being a poor instructor, 3) Female students who remembered a male professor as being an excellent instructor, 4) Female students who remembered a male professor as being a poor instructor, 5) Male students who remembered a female professor as being an excellent instructor,

6) Male students who remembered a female professor as being a poor instructor, 7) Female students who remembered a female professor as being an excellent instructor, and 8) Female students who remembered a female professor as being a poor instructor.

Oklahoma State University is located in Stillwater, Oklahoma, and is the largest university in Oklahoma. Of the graduate students, 2,621 come from Oklahoma. The second largest number of graduate students (621) come from a variety of other countries and the remaining students are from other states (438) for a total of 3,680. In the fall of 1985, there were 662 graduate students in the College of Education which included 320 doctoral candidates. Since the sample will be drawn from graduate students enrolled in the College of Education at Oklahoma State University, the results will be generalizable only to the graduate students in a similar population at Oklahoma State University.

Instruments

Learning Environment Inventory. Two instruments were used for this study. The first was the Learning Environment Inventory (LEI) (Walberg & Anderson, 1968).

This instrument can be used to assess the learning environment of the class as a whole. It contains statements which describe typical school classes and which are related to the following scales: Cohesiveness, Diversity, Formality, Speed, Environment, Friction, Goal Direction, Favoritism, Cliqueness, Satisfaction, Disroganization, Difficulty, Apathy, Democratic and Competitiveness. A Likert scale is used in which the respondent expresses agreement or disagreement on a 4-point scale (4=strongly disagree and 1=strongly agree). There are seven items which are related to each of the 15 scales, a total of 105 items. The mean response of the seven items in each scale is calculated, yielding a scale value for each scale.

Internal consistency reliability for the scales using alpha coefficients based on the responses of 1,048 high school students have been reported by Fraser, Anderson, and Walberg (1982). These ranged from .54 (Diversity) to .92 (Formality and Disorganization). Test/retest estimates, computed on a sample of 139 11th and 12th graders over a 4-week interval, ranged from .43 (Diversity) to .73 (Friction).

The predictive validity of the LEI was supported

in studies using three different combinations of units of analysis: individual student environment perceptions and individual learning outcome scores (Walberg & Anderson, 1968), class mean environemnt perceptions and class mean learning outcome scores (Anderson & Walberg, 1968), and class mean environment perceptions and individual learning outcome scores (Anderson, 1970). Also Walberg (1969b, 1972) analyzed a data set based on 144 classes in several different ways using different units of analysis, controlling for different background variables, and adopting a variety of data analytic techniques. One of Walberg´s (1972) findings was that the multiple correlations between the set of LEI dimensions and raw scores on four learning outcomes were 0.29, 0.30, 0.22, and 0.25 (three significant) when the individual was used as the unit of analysis compared with 0.63, 0.59, 0.43 (all significant) when the class was employed as the unit of analysis (Fraser, Anderson & Walberg, 1982). The LEI involves high inference ratings (Subjective), which Anderson and Walberg (1972) claim to be more valid in predicting learning outcomes than low inference ratings. No formal training is required to administer the LEI, and it takes students approximately 30 minutes to complete.

Purdue Rating Scale for Instruction. The second instrument used was the Purdue Rating Scale for Instruction (PRSI) which was published by the Purdue Research Foundation, Purdue University. The PRSI allows students to rate their teachers on the following ten traits: Interest in the Subject, Sympathy toward Students, Fairness in Grading, Liberal and Progressive Attitudes, Presentation of Subject Matter, Sense of Proportion and Humor, Self-Reliance and Confidence, Personal Peculiarities, Personal Appearance, and Ability to Stimulate Intellectual Curiosity. The teacher is also given an overall rating, and 15 aspects of the classroom situation are evaluated. The scale used is Likert-type in which the subjects respond to items on the first part of the scale by darkening the portion of a continuum best describes the teacher in reference to a specified trait. Items on the second part are answered by darkening 1 of 5 spaces designated 1, 2, 3, 4, or 5 (from "extremely poor" to "excellent") and responses are then summed for the total score. The rating scale is most often applied in college or university classrooms.

Classes of 20 students rating 205 instructors produced reliabilities ranging from .84 (Fairness in

Grading) to .93 (Interest in Subject). The overall teacher rating yielded a reliability coefficient of .91, and the evaluation of course characteristics produced a median coefficient of .82 (Remmers & Weisbrodt, 1965).

There are several studies that have provided evidence of the validity of ratings on PRSI. Remmers, Martin, and Elliot (1949) found that teachers who give their students grades higher than those predicted by placement tests are rated "superior" by those students. Instructors who grade leniently received high ratings (Anikeef, 1953), and better students in a class give higher ratings to their teachers (Stewart & Malpass, 1966).

Instructors with at least five years of teaching experience received higher ratings than those with less experience in a study by Elliot (reported in Remmers, 1963). In 1969, Miklich obtained similar results comparing the ratings predicted by psychologists with those given by students to two different courses taught by the same instructor. Since Miklich´s results agree with those of Remmers et al., (1949) and Elliot (in Remmers, 1963), it can be concluded with confidence that students can make valid ratings using the PRSI. The Purdue Rating Scale for Instruction is a widely

used means of measuring teaching style and effectiveness from the student´s point of view, and the scale is usually completed in five to ten minutes.

Research Design

The design used in this study was causal-comparative in nature (See Figure 1). This design was selected because the variables that were investigated cannot be manipulated but exist in an ex post facto setting (i.e., professor´s behavior, professor´s gender and students´ gender). Since the independent variables, professor´s behavior, professor´s gender, and students´ gender are not controlled, a cause-effect situation should not be inferred, thus any generalization of results is tentative in nature.

Procedure

The subjects for this study were 200 graduate students enrolled in randomly selected classes in the College of Education at Oklahoma State University. Faculty in this field were asked during the spring semester of 1986 to assist in gathering the data by administering the Purdue Rating Scale for Instruction and the Learning Environment Inventory to their

	Professor Gender	
Student Gender		
	Male	Female
Male	R X_1 O	R X_1 O
	R X_2 O	R X_2 O
Female	R X_1 O	R X_1 O
	R X_2 O	R X_2 O

Symbols:
1 = High score on PRSI (professor's behavior)
2 = Low score on PRSI (professor's behavior)
0 = Classroom climate
R = Random

Figure 1. Three-way Analysis of Variance

students. The following departments were asked to participate: The Departments of Applied Behavioral Studies in Education (ABSED), Curriculum and Instruction Education (CIED), Educational Administration and Higher Education (EAHED), and Occupational and Adult Education (OAED).

An initial telephone call was made to every professor chosen in each of the departments in order to

set up a convenient time for the researcher to explain the purpose of the study and the time involved and to ask the professors if they would be willing to administer the instruments to their students. Every professor that this researcher contacted agreed to ask his/her students if they would fill out the instrument. The researcher then hand-delivered the instruments to the departmental mail box of each professor who had agreed to participate. A cover letter and appropriate instructions accompanied the instruments (see Appendix). The participating professors were asked to return the completed forms through the campus mail to the researcher.

After scoring the Purdue Rating Scale for Instruction, the results for professor´s behavior were ranked from high to low within each of the eight groups. The middle one third was discarded leaving two groups; 1) Those professors who were perceived by students as scoring in the top third of the overall rating (high) and 2) Those professors who were perceived by students as scoring in the lower third of the overall rating (low). These were the subjects used in the study. The PRSI score was used, along with the professor´s gender and the student´s gender, as the

independent variable.

A second instrument, the Learning Environment Inventory (LEI) was also given in order to assess the students' perceptions of the learning environment of the class as a whole. The dependent variable was the classroom climate as measured by the scores on the scales of Favoritism, Satisfaction, and Cohesiveness contained in the LEI.

Statistical Analysis

A 2x2x2 three-way analysis of variance was performed using professor's behavior as measured by the PRSI (1 = high, 2 = low), professor's gender (1 = male, 2 = female), and student gender (1 = male, 2 = female) as the independent variables. The dependent variable was classroom climate using three different scales (Cohesiveness, Favoritism, and Satisfaction) as measured by the Learning Environment Inventory. Means and standard deviations were calculated. For significant hypotheses, eta squared strength of association was used to indicate the percent of the variability in perception of classroom climate that may be attributed to the variables.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

The thrust of this study was to determine whether or not classroom climate, as perceived by graduate students, is related to the interaction of the behavior rating of a professor by students, student's gender, and the professor's gender. Accordingly, data relating to the problem were collected from a sample of 200 graduate students in the departments of Applied Behavioral Studies in Education (ABSED), Curriculum and Instruction Education (CIED), Educational Administration and Higher Education (EAHED), and Occupational and Adult Education (OAED) at Oklahoma State University. The results of that analysis are presented in this chapter.

Hypotheses

The following hypotheses were drawn from the literature and were tested in this study.

1. When the independent variables of professor

behavior, professor gender and student gender interact, differences will be found in graduate students´ perceptions of the classroom climate.

2. When the independent variables of professor behavior and professor gender interact, differences will be found in graduate students´ perceptions of the classroom climate.

3. When the independent variables of professor behavior and student gender interact, differences will be found in graduate students´ perceptions of the classroom climate.

4. When the independent variables of professor gender and student gender interact, differences will be found in graduate students´ perceptions of the classroom climate.

5. The professor´s behavior in the classroom will affect graduate students´ perceptions of the classroom climate variables of Favoritism, Satisfaction and Cohesiveness.

6. The professor´s gender, either male or female, will affect graduate students´ perceptions of the classroom climate variables of Favoritism, Satisfaction and Cohesiveness.

7. The students´ gender, either male or female,

will affect graduate students´ perceptions of the classroom climate variables of Favoritism, Satisfaction and Cohesiveness.

Analysis of Data

A 2x2x2 three-way analysis of variance was performed for each of the three dependent variables of the classroom climate (Favoritism, Satisfaction, and Cohesiveness). The professor´s behavior (high, low), professor´s gender (male, female), and student gender (male, female) were the independent variables. Means and standard deviations are presented in Tables I, II, and III.

In analyzing the dependent variable Favoritism (see Table IV), the three-way interaction of professor behavior by professor gender by student gender, was found to be nonsignificant. The two-way interactions, student gender by professor gender, student gender by professor behavior, and professor gender by professor behavior were also found to be nonsignificant. However, the main effect of behavior was found to be significant ($F = 96.237$; $df = 1,3$; $p < .05$). An examination of the M´s indicated that those students who rated their professor´s behavior as low ($M = 16.59$)

TABLE I

MEANS AND STANDARD DEVIATIONS FOR CLASSROOM CLIMATE VARIABLE FAVORITISM

	Behavior, High Professor's Gender		Behavior, Low Professor's Gender	
Student Sex	Male	Female	Male	Female
Male	M = 12.54 SD = 3.06 n = 24	M = 12.28 SD = 2.28 n = 25	M = 16.54 SD = 3.87 n = 24	M = 16.28 SD = 2.91 n = 25
Female	M = 11.17 SD = 2.98 n = 24	M = 12.48 SD = 3.01 n = 23	M = 16.80 SD = 3.97 n = 25	M = 16.75 SD = 3.36 n = 24

TABLE II

MEANS AND STANDARD DEVIATIONS FOR CLASSROOM CLIMATE VARIABLE SATISFACTION

	Behavior, High Professor's Gender		Behavior, Low Professor's Gender	
Student Sex	Male	Female	Male	Female
Male	$M = 20.83$ $SD = 3.83$ $n = 24$	$M = 21.80$ $SD = 2.69$ $n = 25$	$M = 12.48$ $SD = 3.62$ $n = 25$	$M = 14.84$ $SD = 3.90$ $n = 25$
Female	$M = 22.75$ $SD = 2.37$ $n = 24$	$M = 22.65$ $SD = 2.51$ $n = 23$	$M = 12.68$ $SD = 3.14$ $n = 25$	$M = 14.52$ $SD = 3.80$ $n = 24$

TABLE III

MEANS AND STANDARD DEVIATIONS FOR CLASSROOM CLIMATE VARIABLE COHESIVENESS

	Behavior, High Professor's Gender		Behavior, Low Professor's Gender	
Student Sex	Male	Female	Male	Female
Male	M = 18.00 SD = 3.27 n = 25	M = 18.76 SD = 3.76 n = 25	M = 15.76 SD = 3.87 n = 25	M = 16.04 SD = 2.32 n = 25
Female	M = 19.13 SD = 2.83 n = 23	M = 18.40 SD = 4.45 n = 25	M = 15.24 SD = 4.26 n = 25	M = 17.12 SD = 3.21 n = 25

TABLE IV

RESULTS OF THREE-WAY ANALYSIS OF VARIANCE FOR THE CLASSROOM CLIMATE VARIABLE FAVORITISM

Source	df	SS	MS	F
Sex	1	0.560	0.560	0.055
Gender	1	1.452	1.452	0.144
Behavior	1	972.499	972.499	96.237*
SG	1	9.497	9.497	0.940
SB	1	11.000	11.000	1.089
GB	1	5.498	5.498	0.544
SGB	1	5.616	5.616	0.556

*$p < .05$

believed that their professors were more apt to treat certain students more favorably in the classroom than were those professors whose behavior was rated as high ($M = 12.11$). Eta squared strength of association was calculated to be a .34 indicating that approximately 34 percent of the variability in perception of Favoritism may be attributed to the variable of professor behavior.

No significant interaction was found with the dependent variable satisfaction (see Table V) in the three-way interaction, that of professor behavior by professor gender by student gender and all the two-way interactions: student gender by professor gender, student gender by professor behavior, and professor gender by professor behavior. However, two of the main effects were found to be significant: professor gender ($F = 7.586$; $df = 1,3$; $p < .05$) and professor behavior ($F = 323.633$; $df = 1,3$; $p < .05$). In examining professor gender using the three-way analysis of variance, it was found that female professors were rated higher by their students in Satisfaction ($M = 18.37$) than were male professors ($M = 17.09$). Therefore, the students reported that they enjoyed female professors' classes more than male professors' classes. A small difference in the means came out as a significant difference statistically. Since only one percent of the variability was due to the independent variable professor's gender, it is evident that other variables are present in affecting the students' satisfaction. Eta squared strength of association was .01 which indicated that only about one percent of the variability in perception of Satisfaction may be

TABLE V

RESULTS OF THREE-WAY ANALYSIS OF VARIANCE FOR THE CLASSROOM CLIMATE VARIABLE SATISFACTION

Source	df	SS	MS	F
Sex	1	21.085	21.085	1.986
Gender	1	80.550	80.550	7.586*
Behavior	1	3436.591	3436.591	323.633*
SG	1	7.576	7.576	0.713
SB	1	25.540	25.540	2.405
GB	1	33.840	33.840	3.187
SGB	1	0.907	0.907	0.085

*$p < .05$

attributed to the variable of professor gender.

In the variable of professor behavior, those students who rated their professor's behavior as high ($M = 22.00$) had greater satisfaction with their classwork than those students who rated their professor's behavior as low ($M = 13.63$). Eta squared strength of association was .61 indicating that

approximately 61 percent of the variability in perception of Satisfaction may be attributed to the variable of professor's behavior. Student's perceptions of the professor's behavior, therefore, contribute a great deal to the amount of satisfaction the students derive from the class.

In assessing the results of the analysis of the dependent variable Cohesiveness (see Table VI), the three-way interaction of professor behavior by professor gender by student gender was found to be nonsignificant. In addition, the two-way interactions, which consist of student gender by professor gender, student gender by professor behavior, and professor gender by professor behavior were also found to be nonsignificant. One of the main effects, that of professor behavior, was found to be significant (F = 24.751; df = 1,3; $p < .05$). When students rated their professor's behavior as high (M = 18.56), the students reported themselves to be significantly more knowledgeable about, and helpful and friendly toward each other in the classroom than those students who rated their professors as low in behavior (M = 16.04). The calculation of eta squared strength of association, resulting in a .11, indicated that approximately 11

TABLE VI

RESULTS OF THREE-WAY ANALYSIS OF VARIANCE FOR THE CLASSROOM CLIMATE VARIABLE COHESIVENESS

Source	df	SS	MS	F
Sex	1	5.028	5.028	0.396
Gender	1	15.588	15.588	1.229
Behavior	1	313.935	313.935	24.751*
SG	1	0.063	0.063	0.005
SB	1	0.097	0.097	0.008
GB	1	13.598	13.598	1.072
SGB	1	29.525	29.525	2.328

*$p < .05$

percent of the variability in perception of Cohesiveness may be attributed to the variable of professor behavior.

Summary

This chapter summarized and presented the results from the analysis of the data. For each of the three dependent variables concerning the classroom climate

(Favoritism, Satisfaction and Cohesiveness), a 2x2x2 three-way Analysis of Variance was performed. Examination of the Tables (Tables IV, V, and VI) indicated that no significant three-way or two-way interactions were found. Significance was found, however, between the levels of the main effect of the professor´s behavior (high, low) with all three of the the dependent variables. Significance was also found between the levels of the main effect of professor´s gender (male, female) with the dependent variable of Satisfaction.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is divided into three separate sections. The first section contains a summary of the study. Conclusions derived from the findings comprise the second section. The specific recommendations for further research are set forth in the third section.

Summary of the Study

The purpose of this study was to determine whether professor´s behavior, professor´s gender, or students´ gender contribute to graduate students´ perceptions of the classroom climate. The random sample consisted of 200 Oklahoma State University graduate students in the College of Education in the following departments: 1) Applied Behavioral Studies in Education (ABSED), 2) Curriculum and Instruction Education (CIED), 3) Educational Administration and Higher Education (EAHED), and 4) Occupational and Adult Education (OAED).

The professors in the departments listed above were asked to distribute the instruments, consisting of

the Purdue Rating Scale for Instruction (PRSI) found on pages 40-42, and The Learning Environment Inventory (LEI) found on pages 43-45, to their students to fill out. At the professor's option, the instruments were to be either completed in class or taken home. Each professor was given a return envelope to facilitate forwarding the completed instruments to the researcher. The PRSI was used to measure students' perceptions of teachers on the following ten behavior traits: Interest in the Subject, Sympathy toward Students, Fairness in Grading, Liberal and Progressive Attitudes, Presentation of Subject Matter, Sense of Proportion and Humor, Self-Reliance and Confidence, Personal Appearance, and Ability to Stimulate Intellectual Curiosity. Each student rated his professor on these behavior traits which resulted in a low or high rating. The Learning Environment Inventory (LEI) was used to measure the students' perceptions of the classroom climate. Contained in the LEI are 105 statements which describe typical school classes on the following scales: Cohesiveness, Diversity, Formality, Speed, Environment, Friction, Goal Direction, Favoritism, Cliqueness, Satisfaction, Disorganization, Difficulty, Apathy, Democratic and Competitiveness. This researcher

selected only three of these variables which included Favoritism, Satisfaction, and Cohesiveness.

A 2x2x2 three-way analysis of variance was performed for each of the three above-mentioned variables of the classroom climate. The professor's behavior (high, low), professor's gender (male, female), and student's sex (male, female) were the independent variables.

Summary of Findings

Examination of the Tables (Tables IV, V, and VI) indicated that no significant interactions were found. However, it was found that there were predictable relationships between the professor's behavior and the classroom climate. When the means were examined, it was evident that students who rated their professor's behavior as low believed that their professors were more likely to show favoritism toward some of the students in the class than those professors who received a high rating from their students. Eta squared strength of association indicated that approximately 34 percent of this variation was attributed to the professor's behavior. Therefore, the act of showing favoritism to one or more students

in a classroom was perceived by the graduate students as unfavorable behavior for a teacher.

It was also concluded that students of both sexes enjoyed a higher degree of satisfaction from taking female professors´ classes than from taking male professors´ classes. It has been shown that those professors who received a high rating on the PRSI had students who found greater satisfaction with their classes than those students who had rated their professors as low in behavior. Consequently, it appears that the students´ perception of the professor´s behavior relates to the degree of satisfaction that the students derive from the class. The analysis of the data showed that the strength of association using eta squared was 61 percent which is a clear indication that the professor´s behavior plays a major part in determining whether or not these graduate students derived satisfaction from the class.

The professor´s behavior in the classroom also affects the Cohesiveness of the students. Students who perceived their professor´s behavior as high were found to report themselves to be significantly more knowledgeable about and more helpful and friendly toward each other in the classroom than those students

who rated their professors as low in behavior.

The results of this study indicate that graduate students´ perceptions of the classroom climate are at least partially related to the behavior of the professor as the students perceive it.

Discussion

This researcher believes that a professor´s behavior and the climate that is created in the classroom are inextricably linked and are primary determinants of a professor´s effectiveness. The findings of this study may be viewed as providing helpful guidance for professors who are interested in improving their effectiveness in the college or university classroom.

As Director of the Project to Improve College Teaching of the American Association of University Professors and the Association of American Colleges from 1969 to 1970, Dr. Kenneth Eble had an opportunity to observe teaching in many kinds of college and university classrooms throughout the United States. Eble (1976) believes that teaching is a craft that can be learned. His advice to teachers is to "be yourself" and to strive to create a classroom climate in which

the students can also feel free to be themselves. He has also indicated that the center of all teaching and learning is the interaction between the teacher and the learner.

> Teaching is a presence of mind and person and body in relation to another mind and person and body, a complex array of mental, spiritual, and physical acts affecting others. (p. 8)

The results of this researcher's study suggest that the behavior of a professor is related to graduate students' perceptions of the classroom climate in all three of the variables of Satisfaction, Favoritism, and Cohesiveness. It is important, therefore, that professors understand this relationship and make a continuing effort to achieve a supportive environment. In this regard, DeRoche (1972) has placed particular emphasis upon the following view:

> An analysis of self will help the preservice and inservice teacher develop a knowledgeable view about his capabilities and weaknesses, his attitudes and values, his potential for change. Through self-understanding, he will be better able to explore, in psychological

> safety, the differences in the talents, abilities, and behaviors of his students. He will also be able to encourage desirable changes in a supportive environment. (p. 133)

The students were asked to define their professor´s behavior based on their perceptions of the following ten traits contained in the Purdue Rating Scale for Instruction:

> 1) Interest in the Subject: 2) Sympathy toward Students; 3) Fairness in Grading; 4) Liberal and Progressive Attitudes; 5) Presentation of Subject Matter; 6) Sense of Proportion; 7) Humor; 8) Self-Reliance and Confidence; 9) Personal Appearance; and 10) Ability to Stimulate Intellectual Curiosity. (Remmers & Weisbrodt, 1965, p. 4)

In considering the Cohesiveness variable of classroom climate, it is interesting to note that those students who rated their professor as being high in behavior perceived the students in the class as being friendlier, more helpful and knowledgeable toward each other than those students did who rated their professors low in behavior. Consequently, the professor´s behavior seems to relate to the students´ perceptions of the behavior

of the other students in the classroom. Therefore, one of the ways of enhancing the social-emotional conditions in the classroom may be for the professor to change his/her behavior in ways that will result in a higher rating by the students. Such behavioral change might be based on the ten traits mentioned previously in the paragraph. Future research might clarify more specifically ways in which a professor´s behavioral change could contribute to a higher rating by students.

The students´ perception of the classroom climate variable of Favoritism was also found to be significant in how the students rated their professors. It was determined that those professors who were given a high rating by their students were less likely to be perceived by students as showing favoritism to some students over others in the classroom. The students´ perception of Favoritism, therefore, plays an important part in relation to how the classroom climate as a whole was perceived. This finding would seem to imply that professors who make an effort to be impartial in their treatment of students are more likely to be perceived by students as being effective in the classroom.

It was especially interesting to find that

students of both sexes experienced a higher degree of satisfaction from taking female professors´ classes than from taking male professors´ classes. One might speculate that a reason for this is that females and males are socialized differently. According to Rubin (1983), men and women are raised differently once they get to an age beyond the early symbiotic union with their mother. They are emotionally different from one another. For women, the emotional component will always be the most important factor, while the erotic aspect of socialization for men is the most compelling. Eble (1976) supports this view by pointing out that women are more self-revealing than men. He determined that a person´s natural interest in another can be very useful to teaching. Being personal is a way of gaining the kind of interest that is absolutely necessary to learning. "Denying the place of personality in teaching exposes us to the danger of forgetting that human learning is the aim of teaching" (p. 14). Given the research findings identified above, there might indeed be a reason why the students rated female professors higher than male professors. Male professors, therefore, may need to make a special effort to be more self-revealing and to demonstrate a

greater interest in their students in order to contribute to a higher level of student satisfaction.

In the College of Education at Oklahoma State University and other institutions of higher education where this study might be conducted, many of the graduate students are involved in programs of teacher education. The results of this study should be of special interest to these students. It is obviously important for teachers to emphasize mastery of course content; an important factor that is often overlooked, however, is that the students' willingness and interest in learning a subject is to a large degree related to the climate the professor creates or fails to create. Schubert (1980) emphasizes some common problems encountered in teaching teachers about learning environments. He has found that in order to improve classroom practice, teachers must have the ability to reflect critically on their own behavior in the classroom. This researcher's study has also found that the professor's behavior is a key factor relating to students' perceptions of the classroom climate concerning variables of favoritism, satisfaction, and cohesiveness. In this connection, it is suggested that faculty take the time to reflect on their own classroom

behavior.

DeRoche (1972) believes that teachers in training, as well as in-service teachers, need opportunities to study and experiment with classroom climates and with various physical conditions in the classroom. He has also indicated that an appropriate climate will do much to promote good mental health. When teachers are successful in fostering a friendly and helpful classroom climate, one might speculate that good mental health among the students, as well as the stimulation of a genuine interest in the subject matter, may be the results. In such an environment, the students will find it possible to be themselves which should facilitate better learning.

Recommendations

As a result of the research that is being done on classroom climate, there is increasing awareness of the important role that the classroom climate plays in relation to positive student attitudes and favorable environemnts for learning. Research information from classroom climate assessments suggest fairly extensive information concerning possible educational improvements and innovations of interest to educational

policymakers and practitioners.

In general, however, there is still a great deal to learn about classroom climate. The mechanisms by which individuals and groups interact to create a climate that is conducive to positive student outcomes is still unclear. It is important that teachers be able to interpret their classroom environments more clearly. In this regard, there is much to learn about classroom climate both as a dependent variable and as an independent variable. It is hoped that this study, by exploring the relationship between certain aspects of the classroom climate and professor's behavior, has made a contribution to the research in this area.

Certainly other studies should be done to determine whether graduate students' perceptions of the remaining 12 variables of the Learning Environment Inventory are related to the interaction of the behavior rating of a professor, students' gender, and professor's gender. Since both the main effects of professor's gender and professor's behavior were significant when considering the dependent variable of Satisfaction, an interaction might possibly be found in a similar study using a larger sample.

It should be noted that a survey of the literature

has led to the conclusion that this appears to be the first study in which the Learning Environment Inventory was given to graduate students as the subjects and using the professor´s behavior, professor´s gender, and students´ gender as the independent variables. One recommendation is that similar studies be conducted at the university where this research was conducted and other universities which involve graduate students in departments other than education in order to determine whether the results obtained from this study may be generalized more broadly.

It might be of interest to compare the results of similar studies in other land-grant institutions of higher education in the Midwest as well as in other parts of the United States to determine whether similarities may exist. Additional studies of this type, using graduate students as subjects, might be done at non-land-grant, state-supported institutions of higher education as well as at private universities to determine what similarities may exist that could be generalized. Another possibility that might be considered is a similar study at a selective, private university where graduate students may have educationally privileged backgrounds and, therefore,

possibly different perspectives on how the professor is rated.

Finally, because of the dynamics of the interaction between faculty and graduate students in a classroom, it might be useful to study the influence students may have on the classroom climate which would, in turn, affect the professor´s behavior. The educational process in the classroom is a two-way street. It is not only important that professors project themselves in ways that will result in a favorable reaction on the part of the students, but students must be aware of the importance of their contribution to a positive climate by making the professor aware that they are alert, understanding and interested.

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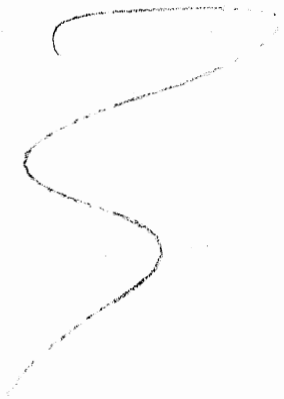
APPENDIXES



APPENDIX A

LETTER TO HERBERT J. WALBERG

November 20, 1985

Dr. Herbert J. Walberg
College of Education
University of Illinois at Chicago
Chicago, Illinois 60680

Dear Dr. Walberg:

I am currently working on a doctorate in higher education at Oklahoma State University. I am interested in giving the Learning Environment Inventory (LEI) to graduate students in education here at Oklahoma State University.

I would like to be able to make the following small changes in three of the questions. Would this be possible to do without changing the validity or reliability?

Question # 5

The books and equipment students need or want are easily available to them in the classroom.

Question # 20

A good collection of books and magazines is available in the classroom for students to use.

Question # 83

Students who have past histories of being discipline problems are discriminated against.

In addition to the above proposed changes, I would like to know whether the LEI has been used in a study involving college or graduate students?

I have borrowed a copy of the Manual for Learning Environment Inventory (LEI). Where can I obtain copies of the LEI and the Inventory Response Sheet?

I believe that a teacher´s personality and hence the classroom climate that he/she creates is the most

important factor that makes a teacher effective. I am grateful to you for the research that you have already done on classroom climate.

I would very much appreciate hearing from you as soon as possible. Thank you very much.

Sincerely,

Judy Nelson

Judy Nelson
9 Ridgewood Dr.
Stillwater, OK 74074

APPENDIX B

LETTER TO PROFESSORS

March 17, 1986

Dear

Thank you for volunteering to give the Purdue Rating Scale for Instruction and the Learning Environment Inventory to your graduate students. As you will recall, this study concerns whether classroom climate, as perceived by graduate students, is affected by the interaction of the behavior rating of a professor by students, students' gender and the professor's gender.

In a recent pilot study, the students finished the instruments in about 30 minutes. Perhaps your class schedule will permit you to administer the instruments in class or you may wish to have your students take the instruments home and return them the following week.

Please return the answer sheets only by March 31 in the self-addressed envelope through the campus mail to Judy Nelson, 309 Gunderson.

If you have any questions, I will be happy to answer them (Telephone number: .377-6783 evenings).

Again, let me express my appreciation for your willingness to allow your students to participate in this research.

If you would like a summary of the results of this study, please return the form below with your answer sheets.

Sincerely yours,

Judy Nelson

Judy Nelson, Graduate Student
Department of Educational Administration and Higher Education
Oklahoma State University
Stillwater, Oklahoma 74074

Please send me a copy of the results of your study.
Name _____
Department _____

APPENDIX C

COPY OF INSTRUMENTS

Description of Project

As a graduate student at OSU you are being asked to be part of a sample of graduate students and rate a college professor you have had, using the Purdue Rating Scale for Instruction and the Learning Environment Inventory. A doctoral student in higher education here at OSU, Judy Nelson, is interested in finding out whether classroom climate, as perceived by graduate students is affected by: 1) the interaction of the behavior rating of a professor by students, 2) students' gender, and 3) professor's gender. The results of her study will be part of her dissertation which, when finished, can be obtained in the OSU Library.

Instructions

1) Female students should have a white answer sheet and male students a blue answer sheet.

2) You may use either a pen or a pencil to mark the answer sheet.

3) You are asked to choose a college professor you have had at any time in your undergraduate or graduate school experience and rate that professor. Note: At the top right-hand side of your white or blue sheet are characteristics that the professor you have chosen should have.

4) Read the directions for the Purdue Rating Scale for Instruction at the top of the first page and answer the questions on the first and second pages concerning the professor you are rating.

5) Read the directions for the Learning Environment Inventory, and mark your answers on the third answer sheet.

Thank you very much for participating in this research!

THE PURDUE RATING SCALE FOR INSTRUCTION

H. H. Remmers and D. N. Elliott

Your Gender
Male ☐ Female ☐

U.S. Citizen
Yes ☐ No ☐

Age:
22-35 ☐
36 over ☐

Before you begin, please check the boxes on the left-hand side.

Female Professor

Excellent Instructor

Note to Students: Following is a list of qualities that, taken together, tend to make any instructor the sort of instructor that he is. Of course, no one is ideal in all of these qualities, but some approach this ideal to a much greater extent than do others. In order to obtain information which may lead to the improvement of instruction, you are asked to rate your instructor on the indicated qualities by darkening one of the spaces on the line at the point which most nearly describes him with reference to the quality you are considering. For example, under Interest in Subject if you think your instructor is not as enthusiastic about his subject as he should be, but is usually more than mildly interested darken the space indicated thus: Fill the chosen space solidly with the special electrographic pencil; leave no stray marks.

Interest in Subject	Always appears full of his subject.	Seems mildly interested.	Subject seems irksome to him.

This rating is to be entirely impersonal. Do not sign your name or make any other mark on the paper which could serve to identify the rater.

1. Interest in Subject	Always appears full of his subject.	Seems mildly interested.	Subject seems irksome to him.
2. Sympathetic Attitude toward Students	Always courteous and considerate.	Tries to be considerate but finds it difficult at times.	Entirely unsympathetic and inconsiderate.
3. Fairness in Grading	Absolutely fair and impartial to all.	Shows occasional favoritism.	Constantly shows partiality.
4. Liberal and Progressive Attitude	Welcomes differences in viewpoint.	Biased on some things but usually tolerant.	Entirely intolerant, allows no contradiction.
5. Presentation of Subject Matter	Clear, definite and forceful.	Sometimes mechanical and monotonous.	Indefinite, involved, and monotonous.
6. Sense of Proportion and Humor	Always keeps proper balance; not over-critical or over-sensitive	Fairly well balanced.	Over-serious; no sense of relative values.
7. Self-reliance and Confidence	Always sure of himself; meets difficulties with poise.	Fairly self-confident; occasionally disconcerted.	Hesitant, timid, uncertain.
8. Personal Peculiarities	Wholly free from annoying mannerisms.	Moderately free from objectionable peculiarities.	Constantly exhibits irritating mannerisms.
9. Personal Appearance	Always well groomed; clothes neat and clean.	Usually somewhat untidy; gives little attention to appearance.	Slovenly; clothes untidy and ill-kept.
10. Stimulating Intellectual Curiosity	Inspires students to independent effort; creates desire for investigation.	Occasionally inspiring; creates mild interest.	Destroys interest in subject; makes work repulsive.

Note to Students: Following is a list of factors which are important to many courses but over which the instructor often has little control. You are asked to rate the course on each of the factors by darkening one of the spaces at the right of each statement. Use the special electrographic pencil. Leave no stray marks.

	5	4	3	2	1
If the course is extremely poor with respect to the factor darken space 1, thus:					■
If the course is below average with respect to the factor darken space 2, thus:				■	
If the course is average with respect to the factor darken space 3, thus:			■		
If the course is above average with respect to the factor darken space 4, thus:		■			
If the course is excellent with respect to the factor darken space 5, thus:	■				

For example: If you feel that the course is not contributing very much to the attainment of your ultimate goal; but on the other hand, is not a complete waste of time you would probably respond to item number 20 by darkening space 2, thus:

	5	4	3	2	1
20. How the course is fulfilling your needs (consider your ultimate as well as your immediate goals)				■	

	5	4	3	2	1
11. Suitability of the method or methods by which subject matter of the course is presented (recitation, lecture, laboratory, etc.)					
12. Suitability of the size of the class (consider the subject matter and type of class—lecture, lab., etc.)					
13. The degree to which the objectives of the course were clarified and discussed					
14. The agreement between the announced objectives of the course and what was actually taught					
15. Suitability of the reference materials available for the course					
16. Suitability of the laboratory facilities available for the course					
17. Suitability of the assigned textbook					
18. The use made of tests as aids to learning					
19. Amount of freedom allowed students in the selection of the materials to be studied (considering the subject matter)					
20. How the course is fulfilling your needs (consider your ultimate as well as your immediate goals)					
21. Range of ability in the class (are there too many extremely dull or extremely bright students?)					
22. Suitability of the amount and type of assigned outside work					
23. The weight given to tests in determining the final grade for the course					
24. Coordination of the tests with the major objectives of the course					
25. Frequency of tests					
26. The overall rating of the instructor					

APPENDIX B:

LEARNING ENVIRONMENT INVENTORY RESPONSE SHEET

Strongly Disagree Disagree Agree Strongly Agree

																					Teacher Use Only
1. SD D A SA	16. SD D A SA	31. SD D A SA	46. SD D A SA	61. SD D A SA	76. SD D A SA	91. SD D A SA	Ch ____
2. SD D A SA	17. SD D A SA	32. SD D A SA	47. SD D A SA	62. SD D A SA	77. SD D A SA	92. SD D A SA	Dv ____
3. SD D A SA	18. SD D A SA	33. SD D A SA	48. SD D A SA	63. SD D A SA	78. SD D A SA	93. SD D A SA	Fo ____
4. SD D A SA	19. SD D A SA	34. SD D A SA	49. SD D A SA	64. SD D A SA	79. SD D A SA	94. SD D A SA	Sp ____
5. SD D A SA	20. SD D A SA	35. SD D A SA	50. SD D A SA	65. SD D A SA	80. SD D A SA	95. SD D A SA	ME ____
6. SD D A SA	21. SD D A SA	36. SD D A SA	51. SD D A SA	66. SD D A SA	81. SD D A SA	96. SD D A SA	Fr ____
7. SD D A SA	22. SD D A SA	37. SD D A SA	52. SD D A SA	67. SD D A SA	82. SD D A SA	97. SD D A SA	GD ____
8. SD D A SA	23. SD D A SA	38. SD D A SA	53. SD D A SA	68. SD D A SA	83. SD D A SA	98. SD D A SA	Fa ____
9. SD D A SA	24. SD D A SA	39. SD D A SA	54. SD D A SA	69. SD D A SA	84. SD D A SA	99. SD D A SA	Df ____
10. SD D A SA	25. SD D A SA	40. SD D A SA	55. SD D A SA	70. SD D A SA	85. SD D A SA	100. SD D A SA	A ____
11. SD D A SA	26. SD D A SA	41. SD D A SA	56. SD D A SA	71. SD D A SA	86. SD D A SA	101. SD D A SA	De ____
12. SD D A SA	27. SD D A SA	42. SD D A SA	57. SD D A SA	72. SD D A SA	87. SD D A SA	102. SD D A SA	Cl ____
13. SD D A SA	28. SD D A SA	43. SD D A SA	58. SD D A SA	73. SD D A SA	88. SD D A SA	103. SD D A SA	Sa ____
14. SD D A SA	29. SD D A SA	44. SD D A SA	59. SD D A SA	74. SD D A SA	89. SD D A SA	104. SD D A SA	Do ____
15. SD D A SA	30. SD D A SA	45. SD D A SA	60. SD D A SA	75. SD D A SA	90. SD D A SA	105. SD D A SA	Cm ____

Learning Environment Inventory

This is not a "test". You are asked to give your honest, frank opinions about the class.

Record your answer to each of the questions on the Response Sheet provided.

In answering each question, go through the following steps:

1. Read the statement carefully.
2. Think about how well the statement describes the class which the instructor you just rated taught.
3. Find the number on the Response Sheet that corresponds to the statement you are considering.
4. Indicate your answer by circling:
   SD if you strongly disagree with the statement,
   D if you disagree with the statement,
   A if you agree with the statement
   SA if you strongly agree with the statement.
5. If you change your mind about an answer, cross out the old answer and circle the new choice.

Be sure that the number on the Response Sheet corresponds to the number of the statement being answered.

1. Members of the class do favors for one another.
2. The class has students with many different interests.
3. Students who break the rule are penalized.
4. The pace of the class is rushed.
5. The books and equipment students need or want are easily available to them.

6. There is constant bickering among class members.
7. The class knows exactly what it has to get done.
8. The better students' questions are more sympathetically answered than those of the average students.
9. The work of the class is difficult.
10. Failure of the class would mean little to individual members.

11. Class decisions tend to be made by all the students.
12. Certain students work only with their close friends.
13. The students enjoy their class work.
14. There are long periods during which the class does nothing.
15. Most students want their work to be better than their friends' work.

16. A student has the chance to get to know all other students in the class.
17. Interests vary greatly within the group.
18. The class has rules to guide its activities.
19. The class has plenty of time to cover the prescribed amount of work.
20. A good collection of books and magazines is available in the library for students to use.

21. Certain students have no respect for other students.
22. The objectives of the class are not clearly recognized.
23. Every member of the class enjoys the same privileges.
24. Students are constantly challenged.
25. Students don't care about the future of the class as a group.

26. Decisions affecting the class tend to be made democratically.
27. Students cooperate equally well with all class members.
28. Personal dissatisfaction with the class is too small to be a problem.
29. The work of the class is frequently interrupted when some students have nothing to do.
30. Students compete to see who can do the best work.

31. Members of the class are personal friends.
32. Some students are interested in completely different things than other students.
33. Student are asked to follow strict rules.
34. Students do not have to hurry to finish their work.
35. The students would be proud to show the classroom to a visitor.

36. There are tensions among certain groups of students that tend to interfere with class activities.
37. Students have little idea of what the class is attempting to accomplish.
38. The better students are granted special privileges.
39. The subject studied requires no particular aptitude on the part of the students.
40. Members of the class don't care what the class does.

41. Certain students have more influence on the class than others.
42. Some students refuse to mix with the rest of the class.
43. Many students are dissatisfied with much that the class does.
44. The class is well organized.
45. A few of the class members always try to do better than the others.

46. All students know each other very well.
47. Class members tend to pursue different kinds of problems.
48. The class is rather informal and few rules are imposed.
49. There is little time for day-dreaming.
50. The room is bright and comfortable.

51. Certain students in the class are responsible for petty quarrels.
52. The objectives of the class are specific.
53. Only the good students are given special projects.
54. Students in the class tend to find the work hard to do.
55. Students share a common concern for the success of the class.

56. Certain students impose their wishes on the whole class.
57. Some groups of students work together regardless of what the rest of the class is doing.
58. There is considerable dissatisfaction with the work of the class.
59. The class is disorganized.
60. Students feel left out unless they compete with their classmates.

61. Students are not in close enough contact to develop likes or dislikes for one another.
62. The class divides its efforts among several purposes.
63. There is a recognized right and wrong way of going about class activities.
64. The class members feel rushed to finish their work.
65. There are displays around the room.

66. Certain students don't like other students.
67. Each student knows the goals of the course.
68. The class is controlled by the actions of a few members who are favored.
69. The subject presentation is too elementary for many students.
70. Most students sincerely want the class to be a success.

71. Each member of the class has as much influence as any other member.
72. Certain groups of friends tend to sit together.
73. The members look forward to coming to class meetings.
74. The class is well organized and efficient.
75. Most students cooperate rather than compete with one another.

76. The class is made up of individuals who do not know each other well.
77. The class is working toward many different goals.
78. All classroom procedures are well-established.
79. The class has difficulty keeping up with its assigned work.
80. The classroom is too crowded.

81. Certain students are considered uncooperative.
82. The class realizes exactly how much work it is required to do.
83. Students who are discipline problems are discriminated against.
84. Most students consider the subject-matter easy.
85. Failure of the class would mean nothing to most members.

86. What the class does is determined by all the students.
87. Most students cooperate equally with other class members.
88. After the class, the students have a sense of satisfaction.
89. Many class members are confused during class meetings.
90. There is much competition in the class.

91. Each student knows the other members of the class by their first names.
92. Different students vary a great deal regarding which aspects of the class they are interested in.
93. There is a set of rules for the students to follow.
94. The course material is covered quickly.
95. There is enough room for both individual and group work.

96. There is an undercurrent of feeling among students that tends to pull the class apart.
97. Each student in the class has a clear idea of the class goals.
98. Certain students are favored more than the rest.
99. Many students in the school would have difficulty doing the advanced work in the class.
100. Students have great concern for the progress of the class.

101. A few members of the class have much greater influence than the other members.
102. Certain students stick together in small groups.
103. Students are well-satisfied with the work of the class.
104. There is a great deal of confusion during class meetings.
105. Students seldom compete with one another.

VITA

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Candidate for the Degree of

Doctor of Education

Thesis: A STUDY OF GRADUATE STUDENTS' PERCEPTIONS OF CLASSROOM CLIMATE AS RELATED TO PROFESSOR'S BEHAVIOR, PROFESSOR'S GENDER, AND STUDENTS' GENDER

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