Relationships among selected teacher behaviors and characteristics and student perceptions of teacher warmth, prestige, and effectiveness
by Douglas Nathanial Smith

A thesis submitted in partial fulfillment of the requirements for the degree of DOCTOR OF EDUCATION
Montana State University
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Abstract:
The intent of this study was to find out if there was any relationship among selected classroom behaviors and characteristics of a sample of teachers at Montana State University and student perceptions of teacher warmth, prestige, and effectiveness. In addition, this study sought to examine the relationships among these teacher behaviors and characteristics and teacher self-ratings and the grades the students expected to receive for the course.

Student volunteers were trained in the use of the Teacher Behaviors and Characteristics Checklist, an instrument developed by the investigator, and then attended three classes of each of the teachers involved in the study during Spring Quarter 1975 in order to count and categorize teacher behaviors and characteristics. Three instruments were administered to the students of these classes—the Authoritativeness Scale, the Scale for Measurement of Counselor Traits, and the Revised Faculty Rating Form. Data relating to the grades the students expected to receive for the course and teacher self-ratings as to the effectiveness of their instruction was also collected.

The hypotheses tested in this study were concerned with the relationships among teacher behaviors and characteristics and five independent measures of teacher performance. These five measures were teacher warmth, teacher prestige, teacher effectiveness, course value—item 33, and course value—item 85. All hypotheses were tested at either the .05 or the .01 level of significance using either the analysis of variance or the Pearson correlation.

Results of this study relevant to the measure of warmth indicated that teachers who were perceived by students as being warmer persons were of higher academic rank, held doctor's degrees, rated themselves between "average" and "above average" in effectiveness, related more of their positive experiences to their class, and tended to dress more in ties and dress pants, sports coats and dress pants, and suits' but did not wear sports coats and suits all of the time. They also positively evaluated student responses less frequently, did not acknowledge student feelings as often, smiled less, and their students spoke less in class and expected to receive lower grades for the course.

Teachers who were viewed with more prestige rated themselves between "average" and "above average" in effectiveness, held doctor's degrees, were expected to give lower grades, and were of higher academic rank—with one notable exception. Instructors received the highest ratings.
RELATIONSHIPS AMONG SELECTED TEACHER BEHAVIORS AND CHARACTERISTICS AND STUDENT PERCEPTIONS OF TEACHER WARMTH, PRESTIGE, AND EFFECTIVENESS

by

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Teachers who were viewed with more prestige rated themselves between "average" and "above average" in effectiveness, held doctor's degrees, were expected to give lower grades, and were of higher academic rank—with one notable exception. Instructors received the highest ratings.
Teachers who received higher ratings in effectiveness rated themselves between "average" and "above average" in effectiveness, had classes in which student laughter occurred more frequently, were of higher academic rank, related more of their positive experiences to their class, and dressed less casually, tending to wear ties and dress pants, sports coats and dress pants, and suits. They also positively evaluated student responses less frequently, did not acknowledge student feelings as often, smiled less, and their students spoke less in class.

The results of this study also indicated that warm teachers were viewed with more prestige and were seen as more effective. However, the courses of warm teachers and prestigious teachers were valued less by the students.
Chapter 1

INTRODUCTION

Adult and higher education is a topic of vital interest in our nation today. The day is here when man in a world of increased technology, increased leisure time, and increased social interaction is finding that education is indeed a life-long process. Along with this increased significance of education is a greater need for more and better adult educators.

Probably no aspect of education has been discussed with greater frequency, with as much deep concern, or by more educators and citizens than has that of teacher effectiveness—how to define it, how to identify it, how to measure it, how to evaluate it, and how to detect and remove obstacles to its achievement. . . . But findings about the competence of teachers are inconclusive and piecemeal; and little is presently known for certain about teacher excellence (Biddle and Ellens, 1964:5).

Studies have been done which go far to answer the question as to the sort of procedures which have been found successful in establishing good relationships in a classroom and thus contribute to teacher effectiveness. However, they do not help the teacher to answer other questions which arise on actually encountering students. "Have I the correct sort of personality?" "Will I be able to win and hold their attention?"

It was the intent of this study to determine and describe some of the characteristics which constitute the "correct sort of personality" and will enable an instructor to win and hold the students'
Two characteristics which may play an important role in the teaching-learning process are personal warmth and social prestige. It appears that warmth or positive regard from others is a genuine need of each individual and thus constitutes a powerful social reinforcer. A teacher who responds to his students in such a way as to contribute positively to their feelings of self-worth becomes an important person to those students and capable of modifying their behavior. The effectiveness of a teacher's social reinforcement and also his potency as a social model are further enhanced if he is held in esteem by his students. In other words, not only is it rewarding to an individual to be around another who expresses positive feelings toward him, it is even more rewarding if that person is of high prestige.

David G. Ryans (1960) notes that it is of interest to consider the kinds of behaviors people remember about teachers and to raise the question of relative importance of such remembered characteristics with respect to behaviors normally assumed to characterize teaching. Using a critical-incidents approach in his teacher characteristics study, Ryan found that most teaching incidents reported (descriptions of actual observed behaviors believed to have contributed to the judgment of superiority or inferiority of the teachers) involved personal or social teacher behaviors, even though directions had given the judges complete freedom in naming critical incidents. He then poses and
answers the following question:

Are personal or social characteristics more important than a teacher's scholarliness, the teaching procedures followed, unique demonstrations, or the content taught? One may well doubt they are more important, but they may be equally important. We question why more people often do not mention incidents involving the teaching learning process per se . . . all of us seek personal reinforcement and it is in the area of the personal or social characteristics of teachers and other persons that we best recall events (Ryans, 1969:72).

It is the contention of the writer that the more a teacher is held in esteem by his students and the more he contributes verbally and nonverbally to their feelings of self-worth the more effective he will be in influencing their behavior. A teacher is thus in a position to reinforce learning in his students in either an appropriate or inappropriate way, either wittingly or unwittingly. For him to be an effective teacher he should be aware of those verbal and nonverbal behaviors which are indicators of warmth and acceptance to his students, and also those characteristics and behaviors which might cause him to be held in esteem by his students.

Asche (1946:258) points out:

We look at a person and immediately a certain impression of his character forms itself in us. A glance, a few spoken words are sufficient to tell us a story about a highly complex matter. We know that such impressions form with remarkable rapidity and with great ease. Subsequent observation may enrich or upset our first view, but we can no more prevent its rapid growth than we can avoid perceiving a given visual object or hearing a melody. We also know that this process, though often imperfect, is also at times extraordinarily sensitive.

It is for these reasons that the characteristics of teacher
warmth and prestige are important aspects of the teacher–learning process and merit investigation.

STATEMENT OF THE PROBLEM

The problem of this study was to find out if there was any relationship among selected classroom behaviors and characteristics of a sample of teachers at Montana State University and student perceptions of teacher warmth, prestige, and effectiveness.

In addition, this study sought to examine the relationships among these teacher behaviors and characteristics and teacher self-ratings and the grades the students expected to receive for the course.

PURPOSE OF THE STUDY

The purpose of this study was to determine some of those interpersonal characteristics and behaviors that make up the personality of a good teacher. In other words, it was concerned with the question, "What personal qualities make a teacher effective?" This research focused on those teacher characteristics and behaviors which seem to be related to the degree to which teachers are held in esteem by their students and the extent to which they are viewed as warm
individuals by their students.  

Furthermore, it was the purpose of this study to define the characteristics of warmth and prestige in behavioral terms in order that an individual so desiring might endeavor to incorporate them into his personality.

NEED FOR THE STUDY

A survey of the available literature pertinent to the issues of this study indicated that, although studies have been done which attempted to determine the interpersonal characteristics of a good leader, counselor, or educator, these characteristics, for the most part, were not behaviorally defined and/or were not examined in relation to adult learning.

Much money, time, and effort is involved in the development by our educational system of teachers—hopefully good teachers—in order to provide the best possible educational opportunities for the country's citizens. This task is undertaken without a complete knowledge of what constitutes a good teacher. Teachers themselves do not know what makes them effective and, for the most part, rely on "seat of the pants" technology.

The lack of an adequate, concrete, objective, universal criterion for teaching ability is thus the primary source of trouble of all who would measure teaching. One typical method of attack is to compile a list of broad general traits supposedly desirable for teachers, with respect to which the rater passes judgment on each teacher. This amounts to an arbitrary
definition of good teaching, which is subjective and usually vague, but it does not necessarily lead to a definition of it. Only if the traits themselves can be reliably identified can their possessor be identified as a "good teacher" according to the definition laid down in the scale (Lancelot, Barr, Torgeson, Johnson, Lyon, Walvoord, and Betts, 1935).

After reviewing over 150 articles on the personality characteristics of teachers, Getzels and Jackson (1963:574) concluded that:

Despite the critical importance of the problem and half-century of prodigious effort, very little is known for certain about the nature and measurement of teacher personality, or about the relation between teacher personality and teacher effectiveness. The regrettable fact is that many of the studies so far have not produced significant results.

Another discouraging aspect of the attempt to ascertain what makes a teacher effective is the fact that learning in an educational setting is conditioned by a very large number of variables. These may include such governing factors as intelligence, the pupils' own habits of study, interest, and physical condition. Learning may also be affected by factors associated with the teacher, his personality, voice, dress, clarity of thought and expression, sense of humor, and so on. It is these latter kinds of factors which serve as the focus of this study.

Many studies have examined the flow of verbal interaction between teachers and their students, i.e., the Flanders system. In such studies verbal behaviors are categorized and classrooms are observed in order to encode student and teacher verbal behaviors. In addition to the charting of verbal interactions, attention must be
paid to the nonverbal behaviors of both the teacher and his students in order to obtain a picture of the total interaction process in the classroom.

Hendrix (1960:39) has observed that:

One phase of teaching looming large in things revealed to date is the enormous role played by nonverbal communication between teacher and students. Current research in paralinguistics—especially that involving kinesics—is revealing ways to identify and classify the nonverbal behavior which human beings learn to interpret in each other; it is thus that we produce the complicated stream of communication sometimes accompanying, sometimes independent of words. Such an analysis might enable a teacher to cultivate desirable paralinguistic effects, and to avoid those which are destructive to his work.

There is a need to define teacher interpersonal characteristics in behavioral terms such that a greater insight into the teaching-learning process might be provided. Also, characteristics so described might be more easily taught, more easily learned, and more amendable to experimental analysis.

GENERAL QUESTIONS TO BE INVESTIGATED

It is the intent of this study to obtain information bearing on the following questions.

1. Are there identifiable and quantifiable characteristics and behaviors of teachers which would affect the degree to which they are viewed as warm, and the degree to which they are viewed with prestige?

2. Do observer ratings of teacher behaviors and characteristics differentiate between teachers who are warm and those who are not,
between teachers who are viewed with prestige and those who are not and between effective and non-effective teachers?

3. Do student perceptions of teacher warmth differentiate between effective and non-effective teachers?

4. Do student perceptions of teacher prestige differentiate between effective and non-effective teachers?

GENERAL PROCEDURES

The problem was approached by first determining which instruments were available that would be capable of assessing the characteristics, behaviors, and perceptions needed to answer the general questions. The investigator decided to use the Authoritativeness Scale (McCroskey, 1966), the Scale for Measurement of Counselor Traits (Suvak, 1966), the Revised Faculty Rating Form (Miller and Guinouard, 1966), and the Teacher Behaviors and Characteristics Checklist. The last instrument was developed by the investigator.

The next step was to select, and obtain the cooperation of, the teachers who participated in the study. This was accomplished by obtaining a random sample of all the 300 level courses offered during Spring Quarter, 1975, and then asking the teachers of these courses to participate in the study.

Finally, student volunteers from three sections of Educational Psychology 208 were trained in the use of the Teacher Behavior and
Characteristics Checklist and then attended three classes of each of the teachers during the quarter in order to count and categorize teacher behaviors and characteristics.

The data was collected during the Spring Quarter, 1975, organized, and analyzed following the collection.

This paper has been structured along the following outline. In Chapter 1, an introduction to the problem was presented, a statement of the problem was given, the need and purpose of the study was clarified, and general questions to be investigated were considered. General procedures were described, limitations acknowledged, and a definition of terms were given.

Chapter 2 consisted of a review of selected literature deemed pertinent to the problem and questions presented in Chapter 1. Literature reviewed included that of teacher warmth and its affect upon learning, behavioral cues of warmth, and teacher prestige and its affect upon learning.

Chapter 3 consisted of the research procedures. Included were the description of the community and population, methods of collecting the data, the reliability and validity of the instruments used, and the organization and analysis of the data.

Chapter 4 consisted of the analysis and the results of the data collected.
LIMITATIONS OF THE STUDY

1. This study was limited to Montana State University students enrolled in 300 level courses during Spring Quarter, 1975.

2. The fact that some teachers were unwilling to participate in the study may have been a limiting factor. There is the possibility that a certain type of teacher refuses to cooperate with such a study.

3. Another limitation of this study was the possibility that teacher-student contact outside the classroom colored student perceptions of their teacher.

4. The general student and teacher population at Montana State University may have been a limiting factor. Due to the nature of its curriculum offerings and geographical setting, a certain type of student and/or teacher, not representative of students and/or teachers nationwide, may be attracted to Montana State University.

5. The resources available at the Library of Montana State University may have been a limiting factor. Financial resources available and selection recommended by the faculty limit the scope and variety of resources.

6. The selection of the literature to be reviewed by the investigator may have been a limiting factor. The investigator restricted his review to certain selections and may not have reviewed other appropriate literature.

7. The instruments used to collect the data, the
Authoritativeness Scale, the Scale for Measurement of Counselor Traits, the Revised Faculty Rating Form, and the Teacher Behaviors and Characteristics Checklist may have been limiting factors. Other instruments, unknown to the investigator, might have been more appropriate for the study.

DEFINITION OF TERMS

The following is a list of terms and their definitions as they were used throughout the study.

**Behavior.** For the purposes of this study, behavior is defined as anything a person does which is observable or recordable, i.e., words, mannerisms, etc.

**Characteristic.** The term characteristic is defined as those aspects of a person which are not behaviors, i.e., dress, title, etc.

**Student Perceptions Questionnaire.** This questionnaire consists of the Authoritativeness Scale, the Scale for Measurement of Counselor Traits, and the Revised Faculty Rating Form.

**Teacher Behavior and Characteristics Checklist.** The Teacher Behavior and Characteristics Checklist was an instrument developed by the investigator to categorize and quantify teacher behaviors in the classroom. This scale consists of eleven categories which enable an
observer to identify and count the frequency of such teacher behaviors as expressing personal concerns, smiling, and attending behaviors.

**SUMMARY**

A need for investigation in the area of teacher personality and its relation to teacher effectiveness is apparent. Although studies have been done which sought to determine the interpersonal characteristics of a good leader, counselor, or educator, these characteristics, for the most part, were not behaviorally defined and/or were not examined in relation to adult learning.

The investigator viewed this study as an attempt to identify and behaviorally describe those interpersonal characteristics and behaviors that make up the personality of a good teacher. The study had as its focus those teacher characteristics and behaviors which seem to be related to the degree to which teachers are held in esteem by their students and the extent to which they are viewed as warm individuals by their students.

This chapter presented an introduction to the concepts of teacher warmth and prestige and posed several questions relating to the possible effects they may have upon teacher effectiveness. The need for the study, general procedures for conducting the study, limitations, and definitions of terms were presented.

Chapter 2 includes a review of the literature relating to this particular study.
The primary emphasis of this chapter is the review of literature relating to the personal characteristics of warmth and prestige and the role they play in interpersonal communication, especially as they pertain to the teaching-learning process. In addition, this chapter will examine the specific behaviors that convey warmth, that is, those behaviors which tell another that he is regarded in a positive way. The chapter is then organized around the following three themes.

1. **Warmth and its affect upon learning.** This section is a review of the literature concerned with the characteristics of warmth and the role it plays in interpersonal relationships, especially as it relates to the teacher-student relationship. Teacher warmth is viewed from the framework of learning theory as a powerful reinforcer of student learning. Studies investigating the effectiveness of certain verbal and nonverbal responses of an experimenter in influencing a subject's behavior and in some cases nonverbal behavior are reported.

2. **Behavioral cues of warmth.** It is the aim of this section to present those studies which attempt to define and specify the behavioral cues of warmth.

3. **Prestige and its affect upon learning.** This section deals largely with studies of social influence which look at communicator prestige as a factor in how effectively a message is communicated.
That is, to what degree and in what way does the prestige of the communicator affect his ability to modify the behavior of others. Studies relating the prestige of a source to his potency as a social model are also discussed.

WARMTH AND ITS AFFECT UPON LEARNING

If psychotherapy can be looked upon in a general way as a learning process, then it is relevant to this study to consider the theory of personality of Carl R. Rogers (1952:483) which was evolved from the study of adults in therapy.

One of Rogers' basic propositions is that the more an individual is able to attend to, think about, and accept as part of himself the whole range of his responses, the better adjusted he is likely to be, and that his most important self-conceptions are learned through his interactions with other people (Ford and Urban, 1963:410).

Ford and Urban (1963:410) go on to describe Rogers' ideas of "need for positive regard and self-regard":

... another important product of learning involves habits of seeking certain kinds of consequences and affective responses related to them. Here the emphasis is on interpersonal situations and the behavior of other people toward the individual. As the infant becomes aware of himself as an entity different from others, he begins to notice differences in their responses to him and his to them. One important category of such responses Rogers calls "positive regard." This includes such responses as "warmth, liking, respect, sympathy, acceptance," all of which seem to have a common denominator of positive affect, an apparently innately desired response which one seeks to create in
oneself. It is proposed that when the individual notices that others are responding toward him with positive affect, it elicits positive affect in him—it is satisfying.

To put it differently, when others evaluate a child's responses negatively by displaying anger or disapproval, discomforting affective responses are produced in the child. Positive evaluation by others through smiles, approvals, or affective responses, however, produce "satisfying" affect in the child. The child gradually comes to seek the latter and avoid the former. In Rogers' terms, he acquires a need for positive regard.

Harris (1973:68) also contends that individuals have a need for positive regard from others. This positive evaluation or recognition from others he terms stroking. In the "I'm not OK--You're OK" position, which is the universal position of early childhood—a position most of us maintain at least in part the rest of our lives—the person feels at the mercy of others. "He feels a great need for stroking, or recognition, which is the psychological version of the early physical stroking."

That warmth is an important quality in a person which seems to carry more weight than others in establishing a view of an individual's personality was investigated by Asch (1946:258). The basic plan followed in the series of experiments he reported was to read to the subject a number of discrete characteristics, said to belong to a person, with the instruction to describe the impression he formed. It was found that the characteristic "warm-cold" produced striking and consistent differences of impression with the characteristic warmth producing a far more positive impression than the characteristic cold.
Whereas the warm-cold variable had been found by Asch (1946) to produce large differences in the impressions of personality formed from a list of adjectives, Kelly (1950:431) introduced the same variable in the form of expectations about a real person in a classroom setting, and obtained similar results. Before his actual appearance in a classroom as a substitute instructor, the stimulus person was introduced by an experimenter, and a little biographical note about him was passed out to the students randomly in such a manner that they were not aware that two kinds of information was being given out. The two notes were identical, except that in one the stimulus person was described among other things as being "rather cold" whereas in the other form the phrase "very warm" was substituted. It was found that different first impressions were produced by the different expectations; and they were shown to influence the observers' behavior toward the stimulus person. Those observers given the favorable expectation (who, consequently, had a favorable impression of the stimulus person) tended to interact more with him than those given the unfavorable expectation.

In summarizing the statistically significant differences in the way subjects viewed the stimulus person and rated him on a set of fifteen rating scales, Kelly (1950:431) states:

The "warm" subjects rated the stimulus person as more considerate of others, more informal, more sociable, more popular, better natured, more humorous, and more humane. These findings are very similar to Asch's for the characteristics common to both
studies. He found more frequent attributions to his hypothetical "warm" personalities of sociability, popularity, good naturedness, generosity, humorousness, and humaneness. So these data strongly support his finding that such a central quality as "warmth" can greatly influence the total impression of a personality. This effect is found to be operative in the perceptions of real persons.

A study by Lehat-Mandelbaum and Kipnis (1973:250) indicates that teacher consideration is an important factor in the teaching-learning process. They asked college students to describe the behavior of their instructors using an adaptation of Fleishman's Supervisory Behavior Description Questionnaire and to also evaluate their ability to teach. Teacher behaviors were categorized in terms of teacher consideration, which relates to the teacher's personal relationship with students—his attention to emotional and social aspects of students' classroom life—and in terms of teacher initiating structure which refers to an emphasis on the content of the course and the learning tasks. The authors concluded that "the teacher seen as high in consideration by his students was considered to be the superior teacher."

In a study by Dawson, Messe, and Phillips (1972:369), an experimenter manipulated his consideration and initiating structure behaviors while teaching four sections of general psychology, and found that classes taught with high consideration were higher on three dependent measures of performance than students taught with low consideration. Students in classes taught with high consideration performed higher on the submission of annotated bibliographies,
answering test items correctly, and obtaining research credits. In classes taught with high initiating structure, students performed higher on the submission of annotated bibliographies.

Gage (1972:35) examined research using such process measures as the Minnesota Teacher Attitude Inventory and the Flanders' interaction categories and found the following:

(a.) Teachers differ reliably from one another on a series of measuring instruments that seem to have a great deal in common. (b.) These reliable individual differences among teachers are fairly consistently related to various desirable things about teachers...Teachers at the desirable end tend to behave approvingly, acceptantly, and supportively; they tend to speak well of their own students, students in general, and people in general. They tend to like and trust rather than fear other people of all kinds.

Thus, there is evidence which supports the thesis that the characteristic of warmth is important in interpersonal relationships and may be an important factor in determining a teacher's effectiveness. In the teacher-student relationship, teacher warmth and positive regard might be viewed from the framework of learning theory as powerful reinforcers of student learning. There are a number of reports in the literature, generally appearing under a verbal conditioning label, which indicate that teacher or experimenter verbal and non-verbal behaviors which might be construed as signs of approval or regard are effective reinforcers. These studies are an application of learning theory in that they deal with the operant conditioning of verbal behavior.
B. F. Skinner (1957:53) pointed out that:

The effect of this procedure in releasing a response from a specific controlling condition is usually achieved in another way. Instead of using a great variety of reinforcements, each of which is relevant to a given state of deprivation or aversive stimulation, a contingency is arranged between a verbal response and a "generalized conditioned reinforcer." Any event which characteristically precedes many different reinforcers can be used as a reinforcer to bring behavior under the control of all appropriate conditions of deprivation and aversive stimulation. A response which is characteristically followed by such a generalized conditioned reinforcer has dynamic properties similar to those which it would have acquired if it had been followed by all the specific reinforcers of issue.

A common generalized conditioned reinforcer is "approval." It is often difficult to specify its physical dimensions. It may be little more than a nod or a smile on the part of someone who characteristically supplies a variety of reinforcements. Sometimes . . . it has a verbal form: "Right!" or "Good!" Because these signs of approval frequently precede specific reinforcements appropriate to many states of deprivation, the behavior they reinforce is likely to be in strength much of the time.

The effectiveness of certain verbal and nonverbal responses of an experimenter in conditioning a subject's verbal behavior and in some cases nonverbal behavior has been demonstrated in many studies. Weiss, Krasner, and Ullmann (1960:415) experimentally manipulated the emotional atmosphere of examiner reinforcement to determine its effect on interpersonal responsiveness as measured by changes in samples of complex verbal behavior. During reinforced trials, the experimenter verbally reinforced the subject's use of emotional words by saying "mmm-hmmm" and nodding his head as if in agreement. The emotional atmospheres were induced by the experimenter during two distinctly different interactions with the subject, each lasting approximately ten
minutes. Half the subjects had been assigned at random to the hostility condition in which they were interviewed by an experimenter who was openly critical, impatient, non-believing, and who frequently expressed his disappointment of the subject's answers, and by implication, questioned the subject's suitability for college work. For comparison the other half of the subjects were exposed to a mildly positive interaction with the same experimenter during which the conversation centered on the subject's interests, aims, and academic work. "Throughout, the experimenter maintained a friendly relaxed atmosphere by expressing interest in the subject." It was found that the induction of a hostile atmosphere significantly reduced responsiveness to conditioning.

Sapolsky (1960:241) provided support for the hypothesis that social reinforcement from a high attraction source is more effective than from a low attraction source in two studies which manipulated high or low attraction between subjects and the experimenter. The subjects in the high attraction group were told, "You will be paired with an experimenter whom you will find congenial. We have developed a questionnaire which enables us to do this." Subjects in the low-attraction group were told, "Usually, we can match people quite well, but in your cases we're going to have some trouble. It's going to take too long to locate someone for you, so I'm assigning you to Miss C. She may irritate you a little, but do the best you can." The effectiveness of
the directions in establishing the two experimental groups was verified after the experimental session by the subject's ratings of the experimenter on a self-anchored sociometric scale. It was found that when there was high attraction between the subject and the experimenter, the reinforcing value of "mmm-hmm" was enhanced as evidenced by a significant increase in the use of first person pronouns which made up the reinforced response class. When the attraction between the subject and the experimenter was low, no increase resulted. When the experimenter left the room and subjects continued construction of tape-recorded sentences, subjects in the low attraction condition exhibited a significant increase in the previously rewarded behavior. It was concluded that the effect of a non-attractive or incompatible experimenter was to suppress or counteract the immediate effectiveness of the positive reinforcement.

Ferguson and Buss (1960:324) investigated operant conditioning of hostile verbs in relation to aggressiveness of the experimenter. Subjects who were instructed to make up a sentence using one verb and one pronoun were verbally reinforced for using hostile verbs. Each of the two experimenters played a neutral role with one group and an aggressive role with the other. "The neutral experimenter was patient, calm, and courteous in an attempt to establish a non-hostile experimental climate. The aggressive experimenter was brusque, unfriendly, impatient, and tended to scowl and sneer." Reports from the subjects
at the termination of the experiment revealed that the two roles (neutral or aggressive) were enacted appropriately. It was found that the aggressiveness of the experimenter significantly affected conditioning: an aggressive experimenter retards learning in comparison to a neutral experimenter.

Employing a verbal conditioning paradigm with verbs of a "mildly hostile" connotation as the reinforced response class, Sarason (1962:376) found that a greater learning effect was obtained from high hostile subjects run by low hostile experimenters. The degree of subject and experimenter hostility was determined by their scores on the Hostility Scale of Sarason's Autobiographical Survey (Sarason, 1958). Sarason pointed out that, "One possibility suggested by these results is that the level of the subjects responsiveness may be influenced by the degree of experimenter-subject compatibility or similarity."

The results of a later study by Sarason and Minard (1963:87) indicated that subjects run by high hostile experimenters exhibited a learning effect only in the high prestige condition, that is, when the experimenter was viewed as prestigious by the subject.

In an actual classroom situation, the reinforcement of student responses may take other forms than a teacher simply saying "mmm-hmm," "yeah," or "good" each time the student responds in a way the teacher considers appropriate. Knowles (1973:90) reviewed a study by Flanders and Simon (1969:68) who concluded from their examination of a dozen
studies that:

The percentage of teacher statements that make use of ideas and opinions previously expressed by pupils is directly related to average class scores on attitude scales of teacher attractiveness, liking the class, etc., as well as to average achievement scores adjusted for initial ability.

Matarazzo, Saslow, Wiens, Weitman, and Allen (1964:54) studied the effect of interviewer headnodding on interviewee speech behavior. In this experiment, a control period of no interviewer headnodding was followed by a period in which the experimental variable was introduced; i.e., each time the interviewee began an utterance, the interviewer nodded his head repeatedly throughout that whole utterance. The results showed that the period of interviewer headnodding was associated with an increase in the average interviewee speech duration.

Cientat (1959:648) reported the effects of nonverbal gestural cues on rate of verbalization in a free-responding conversational situation; the attention to student responses by the professor and a student confederate was varied. Attention or positive reinforcement consisted of students being looked at, whenever they spoke, and being given occasional nods of approbation. Ignorance or negative reinforcement was shown by the professor and a confederate looking away from students when the latter spoke. Cientat found that the amount of time during which a subject spoke was a "positive function of attention and a negative function of inattention."
In another study employing a verbal conditioning paradigm, Matarazzo, Wiens, Saslow, Allen, and Weitman (1964:109), an interviewer's "mmm-hmm" was used as the verbal social reinforcing stimulus. A control period during which the interviewer did not say "mmm-hmm" was followed by a period in which he said "mmm-hmm" throughout each of the subject's utterances. Results indicated that the average interviewee speech duration was greater during the period in which the interviewer said "mmm-hmm" than during the period in which he did not. Two studies by Weiss, Krasner, and Ullmann (1963:423) and Ikman, Krasner, and Ullmann (1963:387) replicated the results of these verbal conditioning procedures employing experimenter headnodding and his saying "mmm-hmm" as social reinforcers. In a study by Krasner, Ullmann, Weiss, and Collins (1961:411) which also demonstrated the verbal conditioning phenomenon, it was noted the two male experimenters obtained significantly greater use of the specified verbal class, emotional words, during reinforced trials rather than operant trials, while the female experimenter obtained group means in the same direction as the two male experimenters, but not to a statistically significant extent. Although the authors do not discuss the point, it is possible that the subjects were influenced to a greater extent by the male experimenters who were Ph.D's in psychology and introduced themselves as "Doctor" than by the female experimenter who had an A.B. in psychology and introduced herself as "Miss," because they viewed the male experimenter
as more prestigious. This point is discussed extensively in the next section of this chapter.

There are many studies of operant conditioning of verbal behavior which offer supportive evidence for the notion that experimenter behaviors which convey acceptance or positive regard, indeed, "signs of approval" as Skinner put it, are effective reinforcers. For example, a study by Krasner (1958:148) reported on thirty studies, all of which follow a Skinnerian paradigm in that the dependent variables are the subject's verbal behavior and the independent variables are generalized conditioned reinforcers intended to bring verbal behavior under the control of the examiner. He reviewed these studies in terms of the different experimenter verbal and nonverbal behaviors employed as reinforcing stimuli. He found the most widely used examiner verbal behavior to be the emission of the "mmm-hmm" sound, while other verbal cues in these studies included "good," "uhha," "yeah," "I see," "that's accurate," "that's right on the button," "that's a good one," "give another please," "you're right," "right," "all right," "fine," "I agree," paraphrase of subject's response, and repetition of subject's response. The gestural cues included headnodding, headshaking, and smiling. A summary of the results of the studies reviewed by Krasner is presented in Table 1, pages 26 and 27, which is similar to the table found in his report.

These studies indicate the effectiveness of social approval as
<table>
<thead>
<tr>
<th>Author</th>
<th>Reinforcing Stimuli</th>
<th>Class of Behavior Reinforced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball (1952)</td>
<td>&quot;mmm-hmm&quot;</td>
<td>&quot;animal&quot;</td>
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<tr>
<td>Greenspoon (1954)</td>
<td>&quot;mmm-hmm&quot;</td>
<td>plural nouns</td>
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<tr>
<td>Mandler &amp; Kaplan (1956)</td>
<td>&quot;mmm-hmm&quot;</td>
<td>plural nouns</td>
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<tr>
<td>B.Sarason (1957)</td>
<td>&quot;mmm-hmm&quot;</td>
<td>verbs</td>
</tr>
<tr>
<td>I.Sarason (1957)</td>
<td>&quot;mmm-hmm&quot;</td>
<td>&quot;verbal activity&quot; verbs</td>
</tr>
<tr>
<td>Mock (1957)</td>
<td>&quot;mmm-hmm,&quot; headnod</td>
<td>&quot;mother&quot;</td>
</tr>
<tr>
<td>Krasner (1958)</td>
<td>&quot;mmm-hmm,&quot; headnod, smile</td>
<td>&quot;mother&quot;</td>
</tr>
<tr>
<td>Salzinger &amp; Pisoni (1957)</td>
<td>&quot;mmm-hmm,&quot; &quot;uh-ha,&quot; or I see</td>
<td>affect statements</td>
</tr>
<tr>
<td>Wilson &amp; Verplank (1956)</td>
<td>&quot;mmm-hmm,&quot; &quot;good,&quot; or writing</td>
<td>plural nouns, adverbs, or travel verbs</td>
</tr>
<tr>
<td>Binder, et al (1957)</td>
<td>&quot;good&quot;</td>
<td>&quot;hostile&quot; verbs</td>
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<td>Cohen, et al (1954)</td>
<td>&quot;good&quot;</td>
<td>&quot;I,&quot; &quot;we&quot; pronouns</td>
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<tr>
<td>Cushing (1957)</td>
<td>&quot;good&quot;</td>
<td>&quot;like&quot; person in pictures</td>
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<tr>
<td>Grossburg (1956)</td>
<td>&quot;good&quot;</td>
<td>&quot;I,&quot; &quot;we&quot; pronouns</td>
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<tr>
<td>Ekman (1958)</td>
<td>&quot;good&quot;</td>
<td>anti-capital punishment</td>
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<td></td>
<td></td>
<td>response</td>
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<td>Hartman (1953)</td>
<td>&quot;good&quot;</td>
<td>&quot;I,&quot; &quot;we&quot; pronouns</td>
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<tr>
<td>Hildum &amp; Brown (1956)</td>
<td>&quot;good&quot;</td>
<td>&quot;attitudes&quot;</td>
</tr>
<tr>
<td>Klein (1954)</td>
<td>&quot;good&quot;</td>
<td>&quot;I,&quot; &quot;we&quot; pronouns</td>
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<tr>
<td>Nuthmann (1957)</td>
<td>&quot;good&quot;</td>
<td>&quot;acceptance of self&quot;</td>
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<tr>
<td>Taffel (1955)</td>
<td>&quot;good&quot;</td>
<td>&quot;I,&quot; &quot;we&quot; pronouns</td>
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<td>Tatz (1956)</td>
<td>&quot;good&quot;</td>
<td>a pair of digits</td>
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<td>Fahmy (1953)</td>
<td>&quot;good-one&quot;</td>
<td>human responses</td>
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<tr>
<td>Spivak &amp; Papajohn (1957)</td>
<td>&quot;right&quot;</td>
<td>autokinetic effect</td>
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<tr>
<td>Author</td>
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<td>Class of Behavior Reinforced</td>
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<td>Wickes (1956)</td>
<td>&quot;fine,&quot; &quot;good,&quot; or &quot;all right&quot;</td>
<td>movement responses</td>
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<tr>
<td>Wickes (1956)</td>
<td>headnod, smile, or lean forward</td>
<td>movement responses</td>
</tr>
<tr>
<td>Ekman (1958)</td>
<td>headnod, smile, or lean forward</td>
<td>movement responses</td>
</tr>
<tr>
<td>Verplank (1955)</td>
<td>paraphrase, agreement, smile</td>
<td>opinions</td>
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<tr>
<td>Kanfer (1954)</td>
<td>&quot;that's accurate,&quot; etc.</td>
<td>autokinetic effort</td>
</tr>
<tr>
<td>Hartman (1955)</td>
<td>head shake</td>
<td>&quot;I,&quot; &quot;we&quot; pronouns</td>
</tr>
<tr>
<td>Mock (1957)</td>
<td>head shake</td>
<td>&quot;mother&quot;</td>
</tr>
<tr>
<td>Greenspoon (1955)</td>
<td>&quot;huh-uh&quot;</td>
<td>plural nouns</td>
</tr>
<tr>
<td>Daily (1953)</td>
<td>&quot;mmm-hmm&quot;</td>
<td>&quot;I,&quot; &quot;we&quot; pronouns</td>
</tr>
<tr>
<td>Hildum &amp; Brown (1956)</td>
<td>&quot;mmm-hmm&quot;</td>
<td>&quot;attitudes&quot;</td>
</tr>
<tr>
<td>Cushing (1957)</td>
<td>&quot;good&quot;</td>
<td>&quot;dislike&quot; persons in pictures</td>
</tr>
<tr>
<td>Daily (1953)</td>
<td>&quot;good&quot;</td>
<td>&quot;I,&quot; &quot;we&quot; pronouns</td>
</tr>
<tr>
<td>Marion (1956)</td>
<td>&quot;good&quot;</td>
<td>&quot;I,&quot; &quot;we&quot; pronouns</td>
</tr>
<tr>
<td>Hartman (1955)</td>
<td>headnod</td>
<td>&quot;I,&quot; &quot;we&quot; pronouns</td>
</tr>
<tr>
<td>Fahmy (1953)</td>
<td>repetition of response</td>
<td>human responses</td>
</tr>
<tr>
<td>Fahmy (1953)</td>
<td>&quot;give another one, please&quot;</td>
<td>human responses</td>
</tr>
</tbody>
</table>
a conditioned secondary reinforcer. The question arises as to whether an experimenter can behave too warmly and thus lose his effectiveness as a reinforcer.

Salzinger (1959:66) recognizes this possibility when he states:

While some reinforcement theorists have made an attempt to define a reinforcement independently of its effect upon behavior, such efforts are largely ineffective when applied to secondary reinforcements. With a primary reinforcement like food it is possible to predict its effectiveness from the operation of food deprivation. It is more difficult to find similar operations for secondary reinforcements like the utterance "mmm-hmm," a smile, or a nod of the head.

Notwithstanding this, Gerwitz and Baer (1958:49) made an attempt to use a social deprivation operation. Employing children as subjects they found that when an adult made words and phrases like "Good!" and "Hm'hmm" contingent upon an arbitrarily chosen response, that response was reinforced (i.e., conditioned). It was found, in addition, that this reinforcing effect of approval could be increased when the children experienced a preceding twenty minute period of social isolation, relative to its effectiveness for the same children when they had not been isolated. In a later study, Gerwitz and Baer (1958:165) found that behaviors maintained by social reinforcers are responsive also to a condition of relative satiation for such reinforcers. Results indicated that the reinforcing effectiveness of approval was relatively greatest after Deprivation—a period of social isolation—intermediate after Non-deprivation, and least after Satiation—equated to a condition in which an abundance of approval and social contact is
supplied to a child by an adult. It was concluded that:

... a reinforcer appearing to be typical of those in children's social drives appears responsive to deprivation and satiation operations of a similar order as those controlling the effectiveness of reinforcers of a number of the primary drives.

In a study by Simkins (1961:380), subjects were given a series of tests and were subsequently criticized or complimented on their performance depending on the treatment condition to which they were assigned and irregardless of their actual performance. After the fake testing, the subjects were presented with a conditioning task, the learning of hostile verbs. During this time and until the completion of the experiment, the experimenter assumed a neutral attitude with all subjects. The results indicated that the effectiveness of the social reinforcers "good" and "that's fine" were dependent upon the attitude assumed by the experimenter. Subjects who had been responded to in an over-solicitous manner by the experimenter tended to show resistance in being conditioned to use hostile verbs.

Simkins concludes:

Perhaps in the context of extreme social approval a satiation effect occurs so that the usual social reinforcers lose their reinforcing effectiveness ... . The best situation for the learning of hostile materials seems to follow a condition of social disapproval.

It is possible that a teacher might increase his effectiveness by varying his behavior in such a way that at times he expresses warmth and acceptance while at other times he appears aloof or even
Johnson (1971: 571) states:

If the invariant expression of warmth produces interpersonal attraction but does not tend to produce influence, the expression of combinations of warmth and other emotions such as anger may be more successful in inducing cooperative behaviors from the listener. A learning theorist who believes in the inhibition of undesirable behaviors through the use of punishment might suggest that the expression of anger towards undesirable behaviors and the expression of warmth towards desired behaviors may be far more effective in inducing cooperation than the invariant expression of warmth.

Johnson (1971) designed a study which compared the effectiveness of expressing different orders of warmth and/or anger upon the induction of cooperation in the actor and the listener in a negotiating situation. In the listener part of the study, seven female confederates were given four hours of instruction on how to express warmth and anger. In a negotiating situation with one subject, the confederate's role was to express warmth and/or anger. With subjects in the invariant warmth and invariant anger conditions, the confederate's affective expression was consistent for the entire thirty minutes. In the warmth-anger and anger-warmth conditions, the confederate would express one emotion for the first half of the negotiating period and the other emotion during the second half. In this study, behavioral compliance was measured by whether the subject would publicly state acceptance of the confederate's arguments or would publicly state rejection of his own arguments. The data indicated that more behavioral compliance took place in the warmth-anger and the anger-warmth conditions than in the invariant
warmth and the invariant anger conditions. Attitude change concerning
the relative merits of the two positions represented was measured by
asking the subjects to indicate the extent to which they felt their
position was superior to the confederate's. It was found that subjects
in the invariant anger and the warmth-anger conditions felt that their
positions were more superior than did the subjects in the invariant
warmth and the anger-warmth conditions.

The author concludes:

Thus, if one wishes to induce behavioral compliance with one's
position, the expression of warmth followed by anger or the
expression of anger followed by warmth is more effective than is
the expression of invariant warmth or anger . . . . But if one
also wishes to change the other's private attitudes concerning
the relative merits of the two positions, the expression of
invariant warmth and the expression of anger followed by warmth
is more effective than the expression of warmth followed by
anger or invariant anger (1971:575).

Aronson and Linder (1965) proposed that the expression of
positive feelings toward another is rewarding to that person, however,
the expression of initially negative feelings, followed by the expres­
sion of increasingly positive feelings might be even more rewarding.

A statement of their viewpoint follows.

It is conceivable that the sequence of O's behavior toward P
might have more impact on P's liking for O than the total number
of rewarding acts emitted by O toward P. Stated briefly, it is
our contention that the feeling of gain or loss is extremely
important—specifically, that a gain in esteem is a more potent
reward than invariant esteem, and similarly, the loss of esteem
is a more potent "punishment" than invariant negative esteem.
Thus, if O's behavior toward P was initially negative but
gradually became more positive, P would like O more than he
would had 0's behavior been uniformly positive. This would follow even if, in the second case, the sum total of rewarding acts emitted by 0 was less than in the first case (1965:156).

Aronson and Linder tested their hypothesis in the following manner: In a laboratory experiment, coeds interacted in two person groups over a series of seven brief meetings. After each meeting, the subjects were allowed to eavesdrop on a conversation between the experimenter and her partner in which the latter (actually a confederate) evaluated the subject. These evaluations involved the confederate's expression of either a uniformly positive attitude toward the subject, a uniformly negative attitude toward the subject, a negative attitude which gradually became positive, or a positive attitude which gradually became negative. It is important to note that the positive evaluations in the Positive-Positive condition were qualitatively the same as the final two evaluations in the Negative-Positive condition. However, there was a quantitative difference. Because the number of evaluations was the same in both conditions, the subjects who received only positive evaluations received a greater number of positive reinforcements and fewer negative reinforcements than subjects in the Negative-Positive condition. The Positive-Negative condition was the mirror image of the Negative-Positive condition. In the Positive-Negative condition, the confederate began by stating that the subject seemed interesting, intelligent, and likeable, but by the seventh session she described the subject as being dull, ordinary, etc. In
the Negative-Positive condition, the confederate began by describing the subject as dull, ordinary, not very intelligent, but during the fourth session began to change her opinion about her. Her attitude became more favorable with each successive meeting until, in the seventh interview, it was entirely positive. The major results showed that the subject liked the confederate best when her evaluations moved from negative to positive and least when her evaluations moved from positive to negative. It was concluded that a gain in esteem is more rewarding than continuous positive esteem, and that a loss in esteem is more punishing than constant negative esteem.

One of the explanations of this gain-loss effect advanced by the authors is a cognitive one.

By changing his opinion about P, O forces P to take his evaluation more seriously. If O expresses uniformly positive or uniformly negative feelings about P, P can dismiss this behavior as being a function of O's style of response, i.e., that O likes everybody or dislikes everybody, and that it is his problem. But if O begins by evaluating P negatively and then becomes more positive, P must consider the possibility that O's evaluations are a function of O's perception of him and not merely a style of responding. Because of this he is more apt to be impressed by O than if O's evaluation had been invariably positive. It is probably not very meaningful to be liked by a person with no discernment or discrimination. O's early negative evaluation proves that he has discernment and that he's paying attention to P—that he's neither blind nor bland. This renders his subsequent positive evaluation all the more meaningful and valuable (1965:168).

Sigall and Aronson (1967) extended the findings of Aronson and Linder (1965) into a different area—the area of communication and opinion change. In this experiment a communicator, prior to presenting
his persuasive communication, needed to interact with the subject over a period of time composed of relatively discrete segments. His behavior during this interaction period took one of our forms: the communicator was continually positive, continually negative, positive in the early segments and negative in the remaining segments; or negative early and positive later on. The communicator then presented a standard communication and the subjects' opinions were measured to determine the effects of these prior statements. It was found that the greatest amount of agreement with the communicator was produced by the communicator who had previously expressed a gain in esteem for the recipient. The extent of agreement was next highest in the case of constant positive esteem, followed by invariate negative esteem, with loss in esteem producing the least agreement.

The results of a study on bargaining strategies by Deutsch, Epstein, Canavan, and Gumpert (1967) lend further support to the notion that negative attitudes expressed toward another followed by the expression of positive attitudes in inducing cooperation from that individual. Their experiment studies five behavioral strategies to see which was most effective in eliciting cooperative behavior from someone whose behavior was not initially and persistently cooperative. The effectiveness of the strategies was investigated in a two-person laboratory game which permitted players to act altruistically, cooperatively, individualistically, defensively, or aggressively toward one
another. One of the players in each game was always an accomplice of
the experimenter, who followed a predetermined strategy in response to
the true subject's behavior in the game. The five strategies employed
by the accomplice were termed Turn the Other Cheek, Nonpunitive,
Deterrent, Reformed Sinner-Turn the Other Cheek, and Reformed Sinner-
Nonpunitive. It was found that the most frequent cooperative responses
were made to the accomplices who employed a Reformed Sinner-Turn the
Other Cheek strategy. Employing this strategy the accomplice played
in a very threatening and aggressive manner during the first fifteen
trials of the game but then dramatically changed his behavior by
disarming on the sixteenth trial. He then followed a Turn the Other
Cheek strategy during which he responded to attacks or threats by
altruistic behavior (doing something that rewarded the other) and with
cooperative behavior otherwise.

Summary

The literature revealed that the dimension of warmth in the
behavior of teachers and examiners has a major influence on the
behavior of those with whom they interact. Thus warmth may be an
important factor in determining a teacher's effectiveness.

Warmth is an important quality in a person which seems to
carry more weight than others in establishing a view of an individual's
personality. Warmth from others appears to be a genuine need of each
individual and thus constitutes a powerful social reinforcer. Many
studies have demonstrated the effectiveness of minimal verbal and
nonverbal cues of a teacher or an examiner in conditioning a subject's
verbal behavior and in some cases nonverbal behavior. Some of the
cues which can be construed as indicants of warmth or approval are
verbal responses such as "mmm-hmm," "good," "okay," "yeah," etc.
Nonverbal behaviors shown to be effective reinforcers are headnods
and smiles.

Evidence from several studies supports the hypothesis that
social reinforcement is more effective when it comes from a warm
individual than when it comes from a cold individual. Furthermore it
appears that a hostile experimenter retards learning in comparison to
a neutral experimenter.

It may be, however, that a teacher or an examiner can behave
too warmly and thus lose his effectiveness as a reinforcer. It appears
that behaviors maintained by social reinforcers are responsive to a
condition of relative satiation for such reinforcers. The results of
several studies suggest that a source might be more effective in
producing behavior change in another by expressing different orders of
warmth and/or anger. The expression of initially negative feelings
toward another followed by the expression of increasingly positive
feelings might be more rewarding to that person than the expression
of invariant warmth.
BEHAVIORAL CUES OF WARMTH

The dimension of warmth in the behavior of teachers and examiners has been cited as having a major influence on the behavior of those with whom they interact. It is this wide range of influence which makes warmth an important variable for investigation. However, in spite of the widespread use of the concept of warmth, there has been no clear definition or specification of the behavioral correlates of this variable. Although global measures of warmth utilizing rating scales have been used in many studies, it is the aim of this section of the present paper to review those studies which attempt to define and specify the behavioral cues of warmth.

In a study by Johnson (1971:571), the following definition was used in training his actors to express warmth.

Warmth can be expressed both verbally and nonverbally. Verbal expressions such as "That's good," or "That's an interesting thought," are statements of warmth. Nonverbally, warmth can be expressed through tone of voice, facial expression, and gestures; for example, leaning toward the other person, looking directly into his eyes, smiling, and a friendly tone of voice all communicate warmth. Warmth can mean several different things. In expressing warmth in this experiment we would like you to express warmth in a way which means acceptance of the other person.

Bayes (1972:33) attempted to define interpersonal warmth in behavioral terms by determining the association between global ratings of warmth and objective measures of specific behavioral cues obtained independently.
Those cues found to be most closely related to warmth ratings were (1) frequency of smiling, the single best predictor, and (2) number of positive statements about other people. A factor analysis identified two factors, the first an evaluative one of positive response to others and the second an activity level factor. The author concluded that "warmth may be tentatively defined as positive response to others, actively conveyed."

After a number of studies performed with college students, Albert Mehrabian (1968:52) came to this conclusion:

I tell you that feelings are communicated less by the words a person uses than by certain nonverbal means—that, for example, the verbal part of a spoken message has considerably less effect on whether a listener feels liked or disliked than a speaker's facial expression or tone of voice . . . . In fact, we've worked out a formula that shows exactly how much each of these components contributes to the effect of the message as a whole. It goes like this: Total Impact = .07 verbal + .38 vocal + .55 facial.

Through the use of an electronic filter, Mehrabian was able to measure the degree of liking communicated vocally. The filter eliminated the higher frequencies of recorded speech, so that words were unintelligible but most vocal qualities remain. Mehrabian found that people were able to judge rather easily and with a significant amount of agreement the degree of liking conveyed by the filtered speech. Given one communication, one group judged the amount of liking conveyed by a transcription of what was said, the verbal part of the message. A second group judged the vocal component, and a third group judged the impact of the complete recorded message. It was
found that when the verbal components of a message agree (both posi­tive or both negative), the message as a whole was judged a little more positive or a little more negative than either component by itself. But when vocal information contradicted verbal, vocal won out.

Some of the other results of Mehrabian's research indicated:

posture is used to indicate liking—the more a person leans toward his addressee, the more positively he feels about him. Relaxation of posture is a good indicator of attitude—a speaker relaxes either very little or a great deal when he dislikes the person he is talking to, and to a moderate degree when he likes the person. Also standing close to your partner and facing him directly indicates positive feelings.

In a study of Haase and Teppler (1972:417), twenty-six coun­selors with an average of 1,500 hours counseling experience rated forty-eight combinations of eye contact, trunk lean, body orientation, distance, and predetermined verbal empathy message on a modification of the Truax-Carkhuff empathy scale. Results showed "that maintaining eye contact, forward trunk lean, close distance, and medium--and high--rated verbal empathy all independently contribute to higher levels of judged empathy

Using photographs of a masked male model as stimuli, James (1932:405) asked his subjects about the attitude being expressed by each posture and the portions of the posture which were most
significant. His findings support the hypothesis that a forward lean communicates a relatively positive attitude (i.e., attentive interest), whereas a backward lean or turning away communicates a more negative attitude.

Machotka (1965:33) informally noted relationships between several postural variables and attitudes. In his study, drawings of groups of people who had assumed various postures relative to one another were judged by subjects who were asked to infer social relationships. He found that openness of arms indicates warmth and that eye contact indicates concern with the addressee.

Argyle and Kendon (1967:74) summarized some of the research literature to the effects of eye contact in interpersonal communication. They report an unpublished study by Weisbrod (1965) who studied eye contact pattern in a group. She found that those individuals in the group who looked most at a speaker were rated by the speaker as instrumental to his goals and as valuing him more. She also found that a speaker feels more powerful when he receives more eye contact from his addressees. Furthermore, those individuals who were looked at most by speakers in the group saw themselves, and were seen by other group members, as being more powerful in the group than those who were looked at less.

Another study reported by Argyle and Kendon on the perceptions of being looked at is that of Mehrabian (Winer and Mehrabian, no date),
where the experimenter interviewed two subjects simultaneously, but spent more time looking at one subject than at the other. The subjects were then asked to rate the attitude of the interviewer toward them, and it was found that the subject who received the most looking judged the experimenter to be more positive toward her than the subject who was looked at less.

Three other unpublished studies reported by Argyle and Kendon lend support to the notion that the degree of eye contact between a speaker and his addressee is related to the amount of positive regard conveyed to the addressee. Kendon (1964) found that subjects thought that an interviewer who did not look at them for part of the interview had lost interest in what they were saying. Exline and Kendon (1965) found that individuals are judged as more "potent" when they do not look while the subject is speaking as compared to a condition in which they do look while he is speaking. Exline and Eldridge (1965) showed that subjects judge a speaker as more sincere if he looks at them when he speaks than if he does not.

The experimental introduction and manipulation of a warmth variable is incorporated in the design of several studies some of which are cited elsewhere in the paper. The effectiveness of the manipulation of the warmth variable in these studies was usually checked by asking the subjects to rate the degree to which they felt liked or the degree to which they viewed the person supposedly expressing warmth as
a warm person.

In a study by Schmidt and Strong (1971:348), two male graduate students in counseling psychology, used as interviewers, controlled the subject's attraction to them by varying their apparent liking for and similarity to the interviewee. In the attractive role the interviewer, attempting to express a liking for the interviewee, greeted him warmly, shook his hand, looked and smiled at him, leaned toward him, responded warmly to him throughout the interview, and indicated that he liked the same things the subjects liked. In the unattractive role, the interviewer ignored the interviewee when he entered the interviewer's office, did not smile at him, did not look at him beyond a few odd glances, found no points of similarity with the subject during the interview, leaned away from him and portrayed disinterest, coldness, and boredom. It was found that the subjects who described the interviewers using a seventy-five item adjective checklist following the interview perceived the interviewers as intended. Mean ratings for the attractive and unattractive roles differed significantly on forty-nine of the seventy-five adjective checklist items. Adjectives for which mean difference between attractive and unattractive ratings obtained F ratios exceeding 20 (p .0001) described attractive interviewers as more friendly, good-natured, cheerful, considerate, happy, warm, attractive and polite, while the unattractive interviewers were described as more cold, humorless, aloof, unhappy, depressed, sad, and
selfish.

Strong and Nixon (1971:562) designed a study which was also successful in varying interviewer attractiveness as evidenced by subjects' ratings on a seventy-eight item adjective checklist. In the attractive role, the interviewer introduced himself by his first and last name (no title), shook the subject's hand, showed him into the office, offered him a chair, and made friendly comments such as "See you found Student Life Studies all right." He sat down in his chair, leaned forward, and moved his chair toward the subject. He was responsive to the subject, he looked and smiled at the subject, and indicated that he liked the same things the subject liked. At the end of the interview, he indicated that he had enjoyed talking with the student by stating, "Ordinarily, these interviews are fairly routine, but I really have gotten a great deal out of talking with you. I thoroughly enjoyed it. Thank you!" In the unattractive role, the interviewer did not greet the subject or discuss any irrelevant topics before going into the subject matter. He moved his chair away from the subject, leaned back in his chair, and did not look at the subject except for fleeting, cold glances. His face was expressionless; he did not smile; he occasionally covered his face with his hands and rubbed his eyes to indicate boredom. He often turned to the side rather than directly toward the subject.

Subjects' ratings of video-taped interviews provided evidence
that counselor attentiveness had been effectively varied in a study by Krumboltz, Varenhorst, and Thoreson (1967:412). In the high-attractiveness role, the counselor looked directly at the student, nodding her head or smiling to indicate she was following the conversation, indicated enthusiasm for the student's thoughts and plans by the tone of voice and the expression on her face, and refrained from distracting mannerisms such as doodling and fidgeting to indicate pose and competence. In order to indicate low attentiveness, the counselor did not smile during the interview, responded to the student in a flat tone of voice, seldom glanced at the student while she was talking, frequently rubbed her eyes, played with her hair, or stretched, and wrote while the student talked and fiddled with objects on the desk. It was found that subjects who had observed the high-attentive counselor rated her significantly more interested in the student's conversation than did those who observed the low-attentive counselor.

Warmth of interaction was one of the variables systematically studied in an experiment by Johnson (1971:207) which investigated the process of negotiations and the induction of cooperation in a negotiating situation. Warmth of interaction was experimentally manipulated by training confederates to negotiate and role reverse in ways which expressed either warmth or coldness. They were trained to express warmth or coldness in their tone of voice and facial expression, to lean toward the subjects when expressing warmth, and to look into the
subject's eyes when expressing warmth and to avoid looking into the subject's eyes when expressing coldness. It was found that the expression of warmth, by means of these behavioral cues, compared with the expression of coldness, resulted in more favorable attitudes toward the confederates as a more understanding person, as more accepting of their position and of them as persons, and as being more similar, both as a person and in beliefs and values. Subjects in the warm conditions also liked and trusted the confederate more.

Summary

The review of the literature relating to the specific behavioral correlates of warmth indicated that warmth can be expressed both verbally and nonverbally, and that the verbal part of a spoken message may have considerably less effect on whether a listener feels liked or disliked than certain nonverbal cues exhibited by a speaker.

The results of several studies indicated that looking at someone while they are speaking, smiling, and leaning forward when seated, portray warmth and attentiveness to that person. An individual's tone of voice and facial expression while addressing someone can indicate liking for that person. There is also some evidence that maintaining a moderately relaxed posture, standing closer to your partner, and facing him, while speaking or listening to him, communicate positive feelings.

Also, making positive statements about other people may
contribute to one's being perceived by others as a warm person.

PRESTIGE AND ITS EFFECT UPON LEARNING

The studies reviewed so far have indicated that warmth or approval is a strong social reinforcer and is thus an important aspect of the teacher-learner interpersonal relationship. These studies have used minimal verbal and nonverbal cues of the examiner such as "mmm-hmm" or headnodding on the basis that such cues indicate attention and interest, are quite natural and realistic, and are more effective than generally realized (Krasner and Ullman, 1965).

Krasner and Ullman (1965:15) stated:

At first, it was thought by investigators that "mmm-hmm" or "good" could be set up as objective types of responses, analogous perhaps to food pellets, which could be delivered in certain quantities with specifiable schedules. However, studies thus far have clearly indicated that the reinforcement could not be divorced from the "giver" of the reinforcement. Unlike animal studies, the magazine delivering the pellet is a crucial variable.

Krasner (1962:88) further explained:

. . . if the reinforcer is defined as a contingent stimulus, the person dispensing the reinforcement is a significant aspect of that stimulus configuration. That is, the experimenter or teacher, when he uses his own behavior as the reinforcing stimulus, is an important and inseparable part of the reinforcement machine.

Riley, Ryan, and Lifschitz (1950:193) asked college students to state ideal factors important in teaching as well as factors which played a part in the actual teaching they experienced. Personality
was frequently mentioned, both as an ideal factor for effective teaching and as a characteristic of their best teachers. Maslow and Zimmerman (1956:185) asked students to make ratings of their teachers' ability and personality on a scale ranging from very good to very poor. They found that the correlation between student ratings of good teaching and good personality was $r = .76$.

Tedeschi, Bonoma, and Schlenker (1972:26) have proposed a general theory of social influence within dyads which states that the reinforcing strength of a source's behavior in influencing the behavior of another depends on the way he carried out his promises to reinforce, and his threats to punish different behaviors of the target in the past. Given this information, a probability statement can be made regarding the influence the source's threats, promises, warnings, or mendations will have on the target's behavior in the future.

Tedeschi, Bonoma, and Schlenker report on a study by Helm, Brown, and Tedeschi (1972) which briefly outlined the Subjective Expected Value (SEV) theory of social influence.

... a threat specifies a source demand and indicates the source's intention to punish the target for noncompliance. Similarly, a promise presents a source's request and offers a reward for noncompliance. The proportion of times the source has actually punished noncompliance to this threat or has rewarded compliance to his promises in previous interactions with the target defines the probability component of current threats or promises. The actual magnitude of punishment or reward stipulated in the current message defines the value associated with the influence attempt. The relationship between these two components is assumed to be multiplicative, yielding the expected value (EV) of a threat or a promise. All else equal, target compliance to promises is assumed to be a direct function of expected value, whereas compliance to threats is directly
mediated by the expected costs of noncompliance.

The theory briefly outlined above also postulates that source characteristics of status, esteem, prestige, and attraction cause the target to bias estimates the probabilities associated with the various message types. These biasing factors lead to subjective expected value (SEV) considerations, since they cause the target individual to behave in a manner which cannot be predicted by expected value considerations alone. In a sense "irrational" conduct is specified and predicted by Tedeschi's SEV theory of social influence.

The SEV theory of social influence postulates that the prestige of the source and positive attraction for the source should cause the target to exaggerate the probability estimations made of low credibility promises, whereas low prestige of the source and negative attraction should cause the target to underestimate the probability of contingent rewards associated with highly credible sources.

Hovland, Janis, and Kelly (1953:20) point out:

If a communicator is personally admired or a member of a high status group, his words may raise the incentive value of the advocated opinion by suggesting that approval, from himself or from the group, will follow its adoption. These feelings of affection and admiration from the audience may stem in part from desires to be like him.

In some studies which investigated the effect the status of the source has on his influence over others, experimental manipulation of the status variable involved varying the dress and general appearance of the source. The initial assumption of these studies is that one's physical appearance and manner of dress are important determinants the extent to which one is perceived by others as prestigious. Describing social techniques used by an individual to present an image
of prestige and competence, Argyle and Kendon (1967:82) state:

To create perceptions of and attitudes toward the self on the part of others present is a subtle social skill, though one that is usually practiced quite unconsciously . . . . Another method of projecting an identity is by means of clothes and general appearance, which are in fact excellent clues to a person's self-image.

The results of a study by Lefkowitz, Blake, and Mouton (1955:704) showed that pedestrians violated the prohibition of an automatic traffic signal more often in the presence of an experimenter's model who violated the prohibition than when the latter conformed or was absent. Significantly more violations occurred among pedestrians when the nonconforming model was dressed to represent high social status than when his attire suggested lower status. The clothing worn by the experimenter's model, a thirty-one-year-old male, intended to typify a high status person was a freshly pressed suit, shined shoes, white shirt, tie, and a straw hat. Well-worn scuffed shoes, soiled patched trousers, and an unpressed blue denim shirt served to define the model as a low status person.

A study by Menard (1972:3394) carried out in an actual teaching situation did not produce evidence indicating a relationship exists between teacher effectiveness and teacher appearance. In addition to investigating this relationship, Menard attempted to determine if the student characteristics of sex, major, achievement, and socioeconomic status are predictors of teacher effectiveness based upon a difference in teacher appearance. The only difference in the
way students were taught during two different quarters was in the appearance of the instructor. During winter quarter, the instructor had long hair, a full beard, and was dressed in faded blue jeans, a work shirt, and boots. During spring quarter, the same instructor, teaching the same course, had short hair, was clean shaven, and was dressed in a white shirt and tie, dress slacks, and dress shoes.

Menard concluded that:

There was no difference in teacher effectiveness as measured by student ratings or student gain regardless of the appearance of the teacher and that the student characteristics of sex, major, achievement, and socioeconomic status did not aid in the prediction of teacher effectiveness (1972:3395).

Mills and Aronson (1965:173) found that a physically attractive communicator was more effective than an unattractive one, but only if she expressed a desire to change opinions. In the attractive conditions, a female communicator was made up to look physically attractive. "She wore chic, tight-fitting clothing; her hair was modishly coiffured; she wore becoming makeup." In the unattractive condition the same communicator was made up to look repulsive. "She wore loose, ugly, ill-fitting clothing; her hair was messy; her makeup was conspicuously absent; the trace of a moustache was etched on her upper lip; her complexion was oily and unwholesome looking." Subjects' ratings of the communicator's characteristics provided strong evidence that she was perceived as more attractive in the attractive conditions than in the unattractive conditions. It is of interest to note that in the
attractive condition she was also rated, to a significant degree, more charming and more affectionate. The data indicated that the attractive communicator was more effective in producing opinion change but only if she expressed a desire to change opinions.

The purpose of a study by Haiman (1949:192) was to determine whether a combination of two specific factors only—a speaker's likeableness and physical attractiveness—would influence the effectiveness of his persuasion, as shown by a difference or lack of difference in audience shifts of opinion pursuant to a variation in those factors.

In the first mode, the speaker tried his best to make a favorable impression upon the audience as regards the factors of physical appearance and likableness. In the second mode, the speaker attempted to be just as effective in delivery and general competence, but to make an unfavorable impression upon the audience as regards physical attractiveness and likableness. This latter was to be accomplished by failing to shave for about 24 hours before the speech, failing to comb his hair, wearing an extremely unattractive pair of glasses, wearing a just noticeably dirty white shirt, slightly torn at the sleeve, and a very un-neatly tied tie, wearing a dirty and completely unpressed pair of trousers, wearing scuffed and unshined shoes, an air of superciliousness, sarcasm, and unfriendliness toward the audience (1949:194).

Results indicated that an opinion shift occurred in the predicted direction which was not quite statistically significant.

Several studies have demonstrated the operation of a so-called prestige factor on the effectiveness of a communication. That is, a prestigious communicator is better able to modify the behavior of others than is a source of low prestige. Tedeschi, Bonoma, and
Schlenker report an experiment by Helm, Brown, and Tedeschi (1972) which was designed to test the effects of experimenter expertise upon the performance of subjects in a verbal reinforcement task. The experimenter was represented as a doctoral candidate collecting his dissertation data or else as an undergraduate fulfilling an assignment for his sophomore level experimental psychology course. Following their task, the subjects were asked to complete an Interpersonal Judgment Scale (Byrne, 1969:35), which asked for the subject's evaluation of the experimenter and from which scores were obtained concerning interpersonal attraction and esteem. It was found that subjects rated the more expert experimenter as more respected and intelligent (i.e., esteemed) than did subjects who rated the less expert experimenter, thereby supporting the effectiveness of the esteem manipulation. The reward offered by the experimenter was social approval—he said "good!" when the desired response was emitted—and when it was offered by the esteemed experimenter it produced more reinforced responses (i.e., compliance to the source's tacit requests).

A work by Oakes (1962:469) illustrated the importance of prestige, in that it compared the effectiveness of signal light reinforcers given various meanings on the verbal behavior of members of a group discussion. Although the results were not statistically significant, it is noteworthy that the trends were in the expected direction. The most effective reinforcer tested in this situation seemed to be the light signifying that the subject's statement
indicated insight or lack of it as judged by statements made by the professional team that originally worked with the patient, while the least effective was the light signifying the subject's statement agreed or disagreed with statements made by a group of laymen who had previously discussed the case.

Mausner (1953:391) tested the hypothesis that subjects will be influenced more by the judgments of a partner with high prestige than by those of one with low prestige. In this study, three groups of ten subjects, equated for interest in art by means of the Allport-Vernon Scale of Values, were given the Meier Art Judgment Test. Subjects in Group I repeated the test alone; subjects in Group II and Group III repeated it with a partner. He was introduced to Group II as a fellow student; to Group III subjects as an "art authority." In the together situation, both members of the pair judged each of the pairs of the pictures; the subject was first in all even trials; the confederate in all odd trials. The confederate had memorized the test; he consistently stated the preference indicated as wrong by the scoring key. Degree of social influence was measured in terms of the shift in frequency of wrong judgments from the alone to the social situation. It was found that Group I (control) showed no significant shift in judgments, while both Groups II and III did show a significant shift with Group III (art authority) showing a significantly greater shift than Group II (fellow student).
Kulp (1934:663) administered a test containing seventy-one propositions dealing with social, economic, political, religious, international, and educational problems to a large group of graduate students in educational sociology. At the second administration of the same test, which occurred one week after the first test, one group of subjects were told that a carefully selected group of social scientists, as experts, had passed judgment on each proposition, a second group was told graduate educators from ten outstanding schools had passed judgment, while a third group was told that a large number of lay citizens had passed judgment. A fourth group received either liberally or conservatively marked test blanks with no statement. A control group received unmarked test blanks as they did during the first testing. In this way a prestige variable was introduced in order to produce the desired changes in attitudes, either toward a more liberal or conservative point of view as defined by the author of the test. Results indicated that a significant shift in attitudes was effected by manipulating suggestion and prestige, with the greatest amount of prestige enjoyed by educators as authorities, and the next greatest amount enjoyed by graduate students in education.

A study by Das (1960:487) indicated that the depth of response to suggestion is greater when the source is a prestigious person. Tape-recorded body-sway suggestions by the Head of the Psychology Department were significantly more effective than those of less
prestigious sources in influencing body-sway in subjects who were high in suggestibility.

Several studies have produced evidence indicating that high status people are more successful than low status people in shaping the opinions of others. In a study by Goldberg and Iverson (1965:673), subjects first completed a questionnaire dealing with various aspects of health and nutrition and were then assigned partners of either high or low status (confederates of the investigator) with whom they listened to three taped speeches expressing conventional or unconventional viewpoints on the same topic. At the end of each speech, the partners first filled out an opinion questionnaire and then showed their responses to the subjects. The subjects followed by responding to these items for a second time. In order to introduce the status variable the confederate was presented to half of the subjects as a second-year medical student who had formerly graduated from the university with honors (high status) and to the other half as a hospital orderly who had not completed high school (low status). The amount of the confederates' influence on the subjects initial ratings and those recorded later. It was found that the high status confederates had a significantly greater amount of influence than the low status confederates.

In an investigation by Haiman (1949:192), the prestige of the speaker was experimentally varied by conveying to the audience
knowledge of his character and reputation prior to his speech and also by a chairman's introduction. After marking their opinions on a questionnaire, three different audiences heard the same tape-recorded speech. The members of one audience were told that the recording they were about to hear was of a speech by Eugene Dennis, Secretary-General of the Communist Party of America. Members of the second audience were told that the speaker was Dr. Thomas Parran, Surgeon General of the United States, and were told, in a short paragraph, about Dr. Parran's impressive professional background. The members of the third audience thought it was a speech by an anonymous college sophomore. Following the speech, the audiences marked after-speech opinions, and also filled out a rating scale which confirmed that the persons selected by the experimenter to represent different degrees of prestige actually did differ in the minds of the audience. It was found that the shift of audience opinion obtained by Dr. Parran, who was highest in prestige as indicated by student ratings, was significantly greater than that obtained by either Mr. Dennis or the Northwestern sophomore. The difference between Mr. Dennis and the sophomore was not significant.

Lorge (1936:402) designed a study that tested the hypothesis that a person, confronted with an opinion from one who has prestige for him, will have his reaction to it colored accordingly. He attempted to measure quantitatively the capability of the factor of prestige to alter the evaluations of statements concerning serious
political and economic questions. On two occasions, two weeks to a month apart, subjects rated each of a set of fifty brief quotations on a five-point scale, indicating the degree of his agreement (or disagreement) with them. It was found that subjects tended to rate the same statement differently when it was attributed to a different author. More specifically, the changes in the ratings of the statements corresponded in direction to the differences in the subject's ratings of the authors.

Kelman and Hovland (1953:327) also found evidence that the prestige of the communicator was important in regard to his ability to produce opinion change. The prestige factor was experimentally manipulated by introducing one speaker as "Judge Howard Elson, presiding judge of the Juvenile Court of this city, author of several books on delinquency, and well known for his views on the integration of the delinquent into society," while introducing the other speaker as a "man on the street" picked from the studio audience. Furthermore, the prestigious communicator attempted to present a more trustworthy, well-informed image while the low-prestige communicator presented an untrustworthy, poorly informed image. The intended difference in the perception of the communicators were achieved, as indicated by pronounced and statistically significant differences in the students' appraisal of the competence, fairness, and trustworthiness of the communicators. Results indicated a greater effect of the communication
on the opinions of the students was achieved by the more prestigious and trustworthy communicator.

The findings of a study by Aronson, Turner, and Carlsmith (1963:31) lend further support to the notion that a positive relationship exists between the prestige of the communicator and the extent of opinion change. This experiment investigated the interaction between the credibility of the communicator and the discrepancy of the communications supposedly written by a highly credible source—an expert on poetry. A control group read virtually identical essays, supposedly written by a student. It was found that subjects who read a communication that was attributed to a highly credible source showed greater opinion change when the opinion of the course was presented as being increasingly discrepant from their own. In sharp contrast to this was the behavior of subjects who were exposed to the same communication—attributed to a source having only moderate ability. In this condition, increasing the discrepancy increased the degree of opinion change only to a point; as discrepancy became more extreme, however, the degree of opinion change decreased.

A study by Bochner and Insko (1966:614) also found opinion change to be linearly related to communicator—communicatee discrepancy for a high credibility source, and curvilinearly related to communicator—communicatee discrepancy for a medium credibility source. Communicator credibility was manipulated by attributing the same
communication to either "Sir John Eccles, Nobel prize winning physiologist," or to "Mr. Harry J. Olsen, director of the Fort Worth Y.M.C.A."

Browning (1965:4803) found that clients counseled by high prestige therapists accepted discrepant interpretations by the therapist and maintained a more positive relationship with him when presented with such interpretations than did clients of low prestige therapists.

Among Browning's conclusions were:

Subjects counseled by a low prestige therapist tend to reject highly discrepant interpretation more so than those associated with a high prestige therapist. Subjects under low prestige conditions receiving discrepant interpretations in the sequence, moderate, high and low, indicate significantly less counselor-subject rapport than subjects in the high prestige condition receiving the same sequence (1965:4804).

Bergin (1962:423) experimentally manipulated therapist credibility by having one group of subjects report individually to the Psychiatry Department of the Stanford Medical Center where the experimenter assumed the role of director of a personality assessment project. To further establish his credibility, subjects were sent to the experimenter by a receptionist, and the experimental room was furnished with elaborate equipment, a couch, an impressive array of medical and psychological volumes, and a large portrait of Freud. In the low credibility conditions, subjects reported for the first session to a decrepit room in the basement of the Education Building. Bergin found that subjects receiving a communication from a source of high
credibility changed their self-ratings in the direction of the communication from a low credibility source.

Sarason and Minard (1963:87) used a verbal conditioning paradigm with first-person pronouns as the reinforced response class in testing the effects of experimenter hostility and prestige on the subject's performance. Subjects in the high-prestige condition were greeted in the experimental situation by a business-like, well-dressed experimenter whose name was on the door of the room. Subjects in the low-prestige condition were greeted by a casually dressed student who said, "I guess you're mine." High and low hostile experimenters, as well as high and low hostile subjects, were determined by their scores on the Hostility scale of Sarason's (1958:339) Autobiographical Survey which had been administered prior to, and independent of, the study. It was found that of the subjects run by high hostile experimenters only those who were run under the high-prestige condition showed an increase in responses of the reinforced class. Subjects run under the low hostile experimenter-low prestige condition also exhibited a learning effect.

Strong and Nixon (1971b:562) tested the hypothesis that expertness masks the influence of attractiveness. That is, with expertness, attractiveness affects influence power. In order to experimentally manipulate the attractiveness variable, the counselor interviewed one-half the subjects in a warm, friendly manner, and
one-half in a cold, unfriendly manner. Furthermore, the interviewers were introduced to one-half the subjects as inexpert, and to one-half as expert. The inexpert introduction was "I'm sorry . . . but Dr. __________ called and said he couldn't make it . . . Dick Williams, a first-year student here, said he would try it. He has little background or experience, but he does have a vague idea of the purpose of the study (1971: )." The nameplate on the desk was removed. The expert introduction included the Dr. reference and the Dr. __________ nameplate. Thus, four experimental conditions were created, expert-attractive, expert-unattractive, inexpert-attractive, and inexpert-unattractive. Interviewer influence was measured by the amount of the subjects' shift in opinion at three levels of discrepancy between the subjects' initial self-estimates of their overall achievement motivation and the interviewer's opinion. The results indicated that expert interviewer's attractiveness does not affect their influence power, while inexpert interviewer's attractiveness defines their influence power. It was also found that a masking effect of expertness occurs in the unattractive role conditions. Expertness carries the interviewer's influence in spite of the negative effects of his unattractiveness. Commenting on the greater degree of hostility that was expressed toward the inexpert-unattractive interviewer in comparison to the hostility expressed toward the expert-unattractive interviewer, the authors remarked, "Obviously, if one must be an unattractive,
discourteous fellow, one had better be an expert."

Learning can occur vicariously through observations of the behavior of social models. Thus, modeling can be an effective procedure for transmitting and controlling behaviors. Social models who are perceived as attractive, prestigeful, competent, and high in status result in increased imitative behaviors by observers (Thoreson and Krumboltz, 1968:393).

Bandura and Walters (1963:195) contend:

No doubt every teacher employs modeling as one of his techniques, whether consciously or unconsciously. His potency as a model will be influenced by such characteristics as age, sex, socio-economic status, social power, ethnic background, and intellectual and vocational status.

In regard to a counselor's effectiveness in influencing the behavior of his client, Krumboltz, Varenhorst, and Thoreson (1967:412) make the following statement:

The success of a counselor in using reinforcement and modeling procedures may depend upon the amount of regard or prestige attributed to him by the client. If the counselor is perceived as prestigeful or if the social model is seen as socially powerful, the counselor may be more influential in modifying relevant behaviors. A variety of possible cues may be used by the client in arriving at an estimate of the counselor's prestige or social power. Information about the experience, training, respect, and effectiveness as reported by other people would seem relevant to the client's perception.

Thoreson and Krumboltz (1968:393) designed a study to produce information bearing on the question "Does the success level of peer social models affect their influence on students of differing abilities?" Audio tape-presented models depicting three levels of
athletic success discussed vocational planning activities for forty-eight eleventh-grade males self-rated as to high, medium, or low athletic success. A similar three-by-three design involved academic success with seventy-two males. The results showed that: (a) different athletic-model success levels caused significant differences in frequency of information-seeking behaviors by students; (b) the high-success athletic model was most effective for all students; and (c) variations in academic-model success levels did not produce significant differences in information seeking.

Walls and Smith (1970:123) investigated the possible relationship of model status to the voluntary delay of reinforcement behavior of adult vocational rehabilitation clients. Adult vocational rehabilitation clients in a resident training program were engaged in a task involving the assembly of bolts, washers, and nuts and were given their choice of a smaller reward immediately or a delayed larger reward. As an ostensibly incidental portion of the procedure, subjects were permitted to view one of four video tapes (immediate or delay decisions by a medium-status peer or a high-status counselor). It was found that subjects, regardless of disability and aptitude, tended to imitate the decision of the video-tape model (both high and medium status) to which they were exposed.

The effect of information concerning the competence of a model on learning of imitative and nonimitative behavior was examined by
Rosenbaum and Tucker (1962:183). The subjects predicted the outcomes of a series of fictitious horse races after exposure on each trial to the prediction and correctness of the prediction made by a simulated partner. The competence of the model, which referred to the degree of correctness of his predictions, was the independent variable. Under training to imitate—a response by the subject matching that of the model was correct—the results indicated that the greater the model's competence, the greater was the facilitation of the learning process. Under training to nonimitate—a response by the subject matching that of the model was incorrect—no differences appeared among three conditions varying the model's competence.

Summary

The literature relating the prestige of a source to his ability to modify the behavior and attitudes of others indicated that the effectiveness of a communication in producing opinion change depends to a large degree on the extent to which the communicator is held in esteem by the recipient of the communication. Similarly, the effectiveness of social reinforcement depends a great deal upon the prestige of the dispenser of that reinforcement.

Information about a source's experience, training, and competence as reported by other people seems relevant to the amount of prestige that is attributed to him. Physical appearance and manner of dress are also important determinants of the extent to which one is
perceived as prestigious.

There is much evidence that a person confronted with an opinion from one who has prestige for him will have his reaction to it colored accordingly. Many studies in the area of social influence have shown that people of high prestige are more successful than people of low prestige in shaping the opinions of others. The results of several other studies indicated that the effectiveness of social approval in modifying behavior is positively related to the prestige of the person delivering the approval. Also, an individual's potency, and intellectual, economic, and vocational status. There is some evidence that if a source is seen as an expert, the degree of warmth he exhibits has little effect upon his influence power.

SUMMARY

This chapter contained a review of selected literature relating to the personal characteristics of warmth and prestige and the role they play in interpersonal communication, especially as they pertain to the teaching-learning process. Another focus of this chapter was the specific behaviors that convey warmth, that is, those behaviors which tell another that he is regarded in a positive way.

This chapter was organized in the following sequence: (1) the influence of warmth on the effectiveness of communication, (2) behavioral cues of warmth, and (3) the influence of source prestige on the
effectiveness of communication.

The summary of the literature revealed that the dimension of warmth in the behavior of teachers and examiners has a major influence on the behavior of those with whom they interact. Thus, warmth may be an important factor in determining a teacher's effectiveness.

Warmth is an important quality in a person which seems to carry more weight than others in establishing a view of an individual's personality. Warmth from others appears to be a genuine need of each individual and thus constitutes a powerful social reinforcer. Many studies have demonstrated the effectiveness of minimal verbal and non-verbal cues of a teacher or an examiner in conditioning a subject's verbal behavior and in some cases nonverbal behavior. Some of the cues which can be construed as indicants of warmth or approval are verbal responses such as "mmm-hmm," "good," "okay," "yeah," etc. Non-verbal behaviors shown to be effective reinforcers are headnods and smiles.

Evidence from several studies supports the hypothesis that social reinforcement is more effective when it comes from a warm individual than when it comes from a cold individual. Furthermore, it appears that a hostile experimenter regards learning in comparison to a neutral experimenter.

It may be that a teacher or an examiner can behave too warmly and thus lose his effectiveness as a reinforcer. It appears that
behaviors maintained by social reinforcers are responsive to a condition of relative satiation for such reinforcers. The results of several studies suggest that a source might be more effective in producing behavior change in another by expressing different orders in warmth and/or anger. The expression of initially negative feelings toward another followed by the expression of increasingly positive feelings might be more rewarding to that person than the expression of invariant warmth.

The literature relating to the specific behavioral correlates of warmth indicated that warmth can be expressed both verbally and nonverbally, and that the verbal part of a spoken message may have considerably less effect on whether a listener feels liked or disliked than certain nonverbal cues exhibited by a speaker.

The results of several studies indicated that looking at someone while they are speaking, smiling, and leaning forward when seated, portray warmth and attentiveness to that person. An individual's tone of voice and facial expression while addressing someone can indicate liking for that person. There is also some evidence that maintaining a moderately relaxed posture, standing closer to your partner, and facing him while speaking or listening to him communicate positive feelings.

Also, making positive statements about other people may contribute to one's being perceived by others as a warm person.
The literature relating the prestige of a source to his ability to modify the behavior and attitudes of others indicated that the effectiveness of a communication in producing opinion change depends to a large degree on the extent to which the communicator is held in esteem by the recipient of the communication. Similarly, the effectiveness of social reinforcement depends a great deal upon the prestige of the dispenser of that reinforcement.

Information about a source's experience, training, and competence as reported by other people seems relevant to the amount of prestige that is attributed to him. Physical appearance and manner of dress are also important to him. Physical appearance and manner of dress are also important determinants of the extent to which one is perceived as prestigious.

There is much evidence that a person confronted with an opinion from one who has prestige for him will have his reaction to it colored accordingly. Many studies in the area of social influence have shown that people of high prestige are more successful than people of low prestige in shaping the opinions of others. The results of several other studies indicated that the effectiveness of social approval in modifying behavior is positively related to the prestige of the person delivering the approval. Also, an individual's potency as a social model is influenced by such characteristics as competency, and intellectual, economic, and vocational status. There is some evidence that if
a source is seen as an expert, the degree of warmth he exhibits has little effect upon his influence power.

Chapter 3 describes the procedures carried out in this investigation. It includes descriptions of the community and population, methodology and types of data collected, hypotheses, and how the data was analyzed.
Chapter 3

PROCEDURES

It was the intent of this study to determine the relationships among selected teacher behaviors and characteristics and certain measures of teacher performance.

This chapter was developed around the following outline:

1. A description of the community
2. A description of the population
3. The sampling procedure
4. Types of data collected
5. Method of collecting data
6. Hypotheses
7. Analysis of the data

COMMUNITY DESCRIPTION

Montana State University was the first state institution of higher education to open in Montana. It was established by the legislature as the state's agricultural land-grant institution in 1893.

Having begun as a new school with land but no buildings, the Montana State University campus now extends over 1,170 acres and has more than forty major buildings. It is located on the outskirts of the city of Bozeman (population 18,000), which is situated in the Gallatin Valley, a rich ranching and farming area.
Montana State University has grown into a multipurpose institution consisting of five colleges: the College of Agriculture, College of Education, College of Engineering, College of Letters and Sciences, and the College of Professional Schools (including the schools of Art, Commerce, Home Economics, Nursing, and the departments of Film and Television Production and Music). Bachelor's degrees are offered in more than forty-five fields with some one-hundred-nineteen separate majors, master's degrees in thirty difference areas, and doctorates in nineteen.

Montana State University's environment is a great attraction to faculty members, some of whom are highly regarded in their fields and could have taught at more prestigious institutions. Fifty-five percent of the faculty have doctorates. Most are relatively young, in the 35 to 45 age bracket. M.S.U. doubled in size in the mid-sixties and its greatest strength lies in the associate professor category (1975:13).

DESCRIPTION OF THE POPULATION

The population of this study consisted of all the 211 junior level courses during Spring Quarter, 1975, as part of the curricula of the five Colleges at Montana State University (see Table 2, page 72, for the population distribution by College).

Of the forty-seven instructors asked to participate in this study, forty-two responded affirmatively while five responded negatively. The last six instructors who responded affirmatively were not used in the study because the number of students who volunteered to
be raters was thirty-six.

Table 2

Population Distribution by College

<table>
<thead>
<tr>
<th>College</th>
<th>300 Level Courses Offered Spring Quarter 1975</th>
<th>Courses Selected for This Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Education</td>
<td>37</td>
<td>7</td>
</tr>
<tr>
<td>Engineering</td>
<td>75</td>
<td>17</td>
</tr>
<tr>
<td>Letters and Science</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>Professional Schools</td>
<td>42</td>
<td>4</td>
</tr>
</tbody>
</table>

The raters used in this study were volunteers from three sections of Educational Psychology 208. These students were offered extra credit by the instructors of these classes for their participation. The seventeen raters used in validating the Teacher Behavior and Characteristic Checklist (TBCC), an instrument developed by the investigator and used in this study, were also volunteers from an Educational Psychology 208 class. Validation of this instrument took place during Winter Quarter, 1975.

SAMPLING PROCEDURE

A list of all the 300 level courses offered during Spring Quarter 1975 was compiled and a number was assigned to each course.
Numbers were then selected from a random numbers sheet until eighty courses had been designated. Laboratory courses were excluded from the study, because it was reasoned that teacher-student verbal and nonverbal interactions would not be as readily observed by all the members of a class in a laboratory situation as is the case in a regular classroom setting. The instructors of the courses selected, according to the order in which their courses were chosen, were then asked to participate in the study. If an instructor did not want to participate, and five instructors did not, the next person on the list was contacted. This procedure was followed until thirty-six instructors were obtained. In this way, the courses included in the study were selected in such a manner that every course in the population had an equal chance to be chosen (Guilford and Fruchter, 1973:122).

TYPES OF DATA COLLECTED

Data pertaining to teacher behaviors and characteristics exhibited in the classroom and measures of teacher warmth, teacher prestige, and teacher effectiveness was gathered on all of the subjects participating in the study.

Teacher behaviors and characteristics were measured by the Teacher Behavior and Characteristics Checklist, which was developed by the investigator. Data relating to teacher warmth, prestige, and effectiveness was obtained from teacher self-ratings and the
administration of the Student Perceptions Scale. This scale is comprised of three instruments, the Authoritativeness Scale, a modified version of the Scale for Measurement of Counselor Traits, and the Revised Faculty Rating Form.

Teacher Behaviors and Characteristics

Instructor behaviors and characteristics were counted and categorized according to the Teacher Behavior and Characteristic Checklist, an instrument developed by the investigator. Following are the eleven categories included in this scale, divided into two classes, along with a description of each category.

Class I. Measures of Instructor Prestige

1. Status and credits: This category refers to the status and credits of the instructor. It includes such information as the instructor's title, position, books he has had published, and awards he has received.

2. Dress: This category includes a notation of the instructor's manner of dressing. It has as its subcategories suit, sports coat with dress pants, shirt and tie with dress pants, dress pants with shirt or sweater and no tie, and other, for male instructors. Data relating to this dress of the five female teachers who participated in the study was not collected.

3. Relation of positive personal experiences: This category
is concerned with the number of times an instructor discusses the places he has visited (outside of Montana), positions or jobs he has held, or the degrees or awards he has received. Also counted are any references to places he is definitely going to visit in the future, definite position and job offers he has received, and any degree programs he is presently in. References to the positive personal experiences of his immediate family are also included in this category.

Class II. Measures of Instructor Warmth

1. Student utterances: This category includes all student responses addressed to the instructor that are not questions unless a question is followed by an instructor statement such as "That's a good (dumb) question." A question would also be counted as an utterance if the instructor were to sigh, purse his lips, or raise his voice in disgust in response to the question.

Although normally considered a question, a statement made with the student raising his voice at the end is counted as an utterance. For example, "Trees are green?" is counted as an utterance, while "Are trees green?" is not. Also, a student response that begins with a question but ends with a statement is considered an utterance. For example, "Are trees green? I've seen only red ones," is an utterance.

Not counted as an utterance is a student statement which is interrupted by, or immediately followed by, another student's statement or question. However, if the latter is a statement and is addressed to
the instructor, it is considered an utterance.

A verbal exchange consisting of more than one response on the part of the student and/or the instructor is counted as one utterance. Such an exchange is considered complete when another student makes a statement or asks a question, when an instructor or a student statement is fifteen or more seconds in duration, or when a silent period of fifteen or more seconds follows an instructor or student statement.

2. Positive evaluation of student utterance: This category includes the number of times the instructor responds to student utterances in a positive way. Instructor behaviors included in this category are headnodding, smiling, referring to the student by name, or saying "good," "yeah," "mmm-hmm," "okay," "That's a good point," "I agree," etc., either during or after a student utterance. Also included are instructor paraphrases of student utterances.

This category can be marked a maximum of one time for each student utterance. Also, a response such as "That's a good question" is included in this category. If the instructor exhibits both category 2 and category 3 behaviors during or after a student utterance, only the last behavior exhibited is counted.

3. Negative evaluation of student utterances: This category includes the number of times the instructor responds to student utterances in a negative way. Instructor behaviors included in this category are headshaking, saying "no," "wrong," "uh-uh," "That's
wrong," sighing without smiling, and closing eyes or pursing lips without smiling.

This category can be marked a maximum of one time for each student utterance. Also, a response such as "That's a dumb question," is included in this category. If the instructor exhibits both category 2 and category 3 behaviors during or after a student utterance, only the last behavior exhibited is counted.

4. Acknowledgement of student feelings and opinions: If the instructor inquires into the students' opinions and feelings, these behaviors are coded 4. Not included are purely academic questions having only one correct answer, such as "What answer did you get for the third problem?"

This category also included the listening skills of reflecting feelings and content and paraphrasing. Reflecting feelings involves expressing in fresh words the essential feelings, stated or strongly implied, of a student.

Reflecting content is repeating in fewer and fresher words the essential ideas of the student. It is used to clarify ideas that the student is expressing with difficulty and confusion.

Paraphrasing, which is very similar to reflecting content, is a method of restating the student's basic message in similar, but usually in fewer words (Brammer, 1973:90).

Example: Student: "I just don't understand. One minute she
tells me to do this and the next minute
to do that."

Instructor: "She really confuses you."

Example: "Do you feel this assignment was too difficult?"

If an instructor paraphrases a student statement, then both this category and category 2 are checked.

5. **Instructor speaks positively of others:** This category includes instructor statements that he likes someone, that he thinks someone did a good job, that he thinks someone looks good, and that he thinks someone is smart, kind, funny, etc. Included only are statements about people not present in the classroom.

    Also statements that merely indicate that the instructor thinks positively of others are not included. To be included in this category, the instructor must actually state his opinion or express his feelings by using such words as like, good job, smart, considerate, or pretty.

6. **Instructor speaks negatively of others:** This category includes instructor statements that he dislikes someone, that someone looks ugly, that someone did a bad job, or that he thinks someone is dumb, cruel, boring, etc. Included only are statements about people not present in the classroom.

    Also, statements that merely indicate that the instructor thinks negatively of others are not included. To be included in this
category, the instructor must actually state his opinion or express his feelings by using such words as dislike, bad job, ugly, dumb, inconsiderate, etc.

7. Instructor smiling: This category refers to any instructor behavior which can be construed as a smile— even a slight smile. Laughing is considered a smiling behavior.

A smile is considered terminated only when the mouth returns to a neutral position. Hence, a continuous smile with varying degrees of intensity is counted only once.

8. Student laughter: This category refers to any audible student behavior which can be construed as laughter and which is in response to the instructor.

Student laughter is considered terminated when a three-second period of no laughing follows (see Appendix B, pages 150 and 151, for a copy of the rating sheet used in the study).

Reliability

Test-retest reliability was established for the Teacher Behavior and Characteristic Checklist through the following procedure. First, fifteen students who were volunteers from an Educational Psychology 208 class were trained by the investigator to count and categorize instructor behaviors according to the Teacher Behavior and Characteristic Checklist. This training took place during Winter Quarter 1975 and included five one-hour sessions and one one-and-one-
half hour session over a period of six weeks. Both audio and video tapes were used during the training sessions. During the sixth session, the students viewed a twenty-five minute video tape of an actual situation and quantified instructor behaviors in accordance with the checklist. The video tape depicted the investigator as the instructor making a presentation and leading a discussion in a regular class session of a Philosophy of Education five course. Then ten days after the first rating, the students once again rated the same tape—eight students failed to attend the last session.

The reliability with which the students rated the tape was determined for the nine categories tested (instructor dress and status categories were not tested) by comparing their ratings on the first occasion with their ratings on the second occasion. The results of the Chi Square statistics used in this analysis appears in Table 3 below.

Table 3

<table>
<thead>
<tr>
<th>Rater</th>
<th>$X^2$</th>
<th>Rater</th>
<th>$X^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.17</td>
<td>5</td>
<td>.706</td>
</tr>
<tr>
<td>2</td>
<td>3.69</td>
<td>6</td>
<td>.796</td>
</tr>
<tr>
<td>3</td>
<td>1.45</td>
<td>7</td>
<td>.757</td>
</tr>
<tr>
<td>4</td>
<td>1.30</td>
<td>8</td>
<td>.498</td>
</tr>
</tbody>
</table>
Validity

The validity established for the Teacher Behavior and Characteristic Checklist is primarily content validity. Upon completion of the instrument, three professionals in the field of education examined the instrument and compared it to the stated goals of the study in order to determine if the needed data would be adequately collected and quantified. Minor revisions were made during the rater training sessions when there was a need to further describe the behaviors included in certain categories.

Data Relating to Teacher Warmth

A modified version of the Scale for Measurement of Counselor Traits, an instrument developed by Suvak (1966), was administered to the students included in the study in order to obtain a measure of the degree to which the students viewed their instructors as warm persons, i.e., the degree to which they felt liked, respected, and understood by their instructors.

The instrument consists of twenty-eight five-choice, strongly agree to strongly disagree scales which require about ten minutes to complete.

Reliability

The reliability of the Scale for Measurement of Counselor Traits was determined by both the odd-even and test-retest methods.
The odd-even reliability coefficients were computed by obtaining a sum of first the responses to the odd-numbered items and then a sum of the even-numbered items. The author considered the adjusted reliability coefficients which ranged from .790 to .907 to be an adequate measure of reliability.

Another reliability estimate of the Scale for Measurement of Counselor Traits was made which involved a test-retest comparison. Pearson r coefficients derived from this procedure ranged from .139 to .673, with a mean of .418 for the thirty-two correlations. All but the r of .139 reached significance at the .05 level.

Validity

The validity of the Scale for Measurement of Counselor Traits was assessed by making a comparison between the Scale for Measurement of Counselor Traits and the scales developed by Truax. Subjects were asked to evaluate three ten-minute taped counseling interviews on the Scale for Measurement of Counselor Traits and the Truax scales. Pearson r correlation coefficients were computed between the Scale for Measurement of Counselor Traits total content scores and the Truax scores. Suvak concluded that these validity coefficients which ranged from .559 to .843 indicated a high positive relationship between these two scales.
The Authoritativeness Scale developed by McCroskey (1966:67) was administered to the students included in the study in order to obtain a measure of the extent to which they viewed their instructors with prestige. Student ratings of their instructors according to this scale were used for the purpose of determining the extent to which the students viewed their instructors as prestigious.

The instrument consists of twenty-two five choice, strongly agree to strongly disagree Likert scales and requires approximately ten minutes to complete.

To obtain estimates of item discrimination, reliability, and validity, the Authoritativeness scale was used in seven experiments reported by McCroskey. Introductions for speakers, which were developed to represent varying prestige levels, constituted the independent variable in four of these experiments. In two experiments, two versions of a speech advocating federal control of education were tape-recorded and presented with no information as to the source of the communication. One form of each speech made extensive use of documented evidence. The other contained no documentation or qualification. In the remaining experiment one group of subjects were instructed to "identify in your mind the speaker whom you would be most likely to believe, other things being equal." Another group was to imagine the speaker they would be "least likely" to believe. In
each experiment, the subjects completed the Authoritativeness Scale and also a revised version of the Anderson Authoritativeness Scale.

Reliability

The reliability of the Authoritativeness Scale was determined by both the split-halves reliability estimate and the Hoyt Internal Consistency reliability estimate. These estimates were computed for six of seven experiments. The split-halves reliability estimates ranged from a low of .944 to a high of .978. The Hoyt Internal Consistency Reliability estimate ranged from a low of .946 to a high of .978.

Validity

The author cited three relevant indications of validity for the Authoritativeness Scale. First, the content of the items and the procedure used in their selection tend to indicate that they are representative samplings of the universe of items pertaining to the construct of prestige. Second, this scale correlates highly with the Anderson authoritativeness scale making it appear that it measures primarily the same things as the Anderson scale. Third, all the hypotheses in all but one experiment were confirmed by the scores derived from these two scales.
Data Relating to Teacher Effectiveness

Data relating to teacher effectiveness included student responses to the Revised Faculty Rating Form, to items 33 and 85 of the Student Perceptions Scale, and to teacher self-ratings.

The Revised Faculty Rating Form, developed by Miller and Guinouard (1966:2) at Montana State University, is a thirty-five item questionnaire which provides for student evaluation of teachers. The preliminary form of this instrument consisted of sixty-one statements which were obtained from three sources: (1) other rating forms, (2) suggestions of Montana State University faculty members, and (3) the experimental literature.

During the final week of Winter Quarter 1966, the preliminary form of sixty-one items was given to students for rating forty-one teachers in sixty-three classes. These teachers, who volunteered to be rated and whose anonymity was protected, were from the four colleges of Montana State University. The level of courses ranged from freshman through senior and the size of the classes ranged from less than ten to more than two hundred. According to the student ratings, this sample of teachers represent about the 60th percentile in general teaching ability, and the courses they teach are slightly above average value. The following statistical analyses were calculated based on the ratings of the forty-one teachers: (1) the men and standard deviation for each item was figured; (2) correlation among all items was
figured; and (3) the inter-item correlations were factor analyzed. The special statistical criteria for selecting from the preliminary form thirty-five items that presently make up the Revised Faculty Rating Form were: "(1) a standard deviation of 1.0 or higher, (2) a mean greater than 1.5, (3) inter-item correlations low positive or negative, (4) factor loadings as one of the top ten items for at least one of the seven factors, and (5) some items stated negatively as well as some stated positively (Miller and Guinouard, 1966)."

The ratings of teachers evaluated on the Revised Faculty Rating Form are compared to the norms prepared from the ratings of the forty-one teachers who were rated Winter Quarter 1966 and reported in terms of deciles. There were not sufficient data to develop norms for items 29 through 35, which were concerned with student assistants and laboratory work. Since classes that are laboratories are not included in the present study, items 29 through 35 were not included in the questionnaire administered to students in this study.

Student responses to items 33 and 85 of the Student Perceptions Scale were looked at separately and were used as measures of teacher effectiveness. Item 33 reads, "I believe that the class sessions helped us: 1. Not at all; 2. Only slightly; 3. Considerably; 4. A great deal." Item 85 reads, "How would you rate the overall value of this course? 1. poor; 2. fair; 3. good; 4. very good; 5. superior."
Teacher Self-Ratings

Also looked at separately and used as a measure of teacher effectiveness were teacher self-ratings. Teachers included in the study responded to the question, "Please rate your effectiveness as a teacher in the class, _____________. 1. Very low; 2. Low; 3. Average; 4. High; 5. Very high."

METHOD OF COLLECTING DATA

At the beginning of Spring Quarter 1975, thirty-six students from three sections of Educational Psychology 208 were trained by the investigator in the use of the Teacher Behavior and Characteristics Checklist. The training consisted of two one-and-a-half hour sessions on two successive days. During the second session, the students rated the same twenty-five minute tape used in the validation of the Teacher Behavior and Characteristics Checklist in order to assess the effectiveness of the training.

Each student was then randomly assigned an instructor whose classes they attended three times during the quarter—once toward the beginning, once toward the middle, and once toward the end—for the purpose of counting and categorizing teacher behaviors according to the Teacher Behavior and Characteristics Checklist. They visited the teachers' classrooms a fourth time to administer to the students the Student Perceptions Scale and also to ask the students what grade they
expected to receive for the course. These questionnaires required approximately thirty minutes for the students to complete.

At the end of the quarter, the investigator contacted each of the teachers in order to obtain their self-evaluations as to the effectiveness of their teaching in the courses included in the study.

HYPOTHESES

The purpose of this study was to determine the relationships among teacher behaviors and characteristics and certain measures of teacher performance.

In the hypotheses that follow, teacher performance was defined by five independent measures. These five measures were:

1. Teacher warmth as measured by items one through thirty-three of the Student Perceptions Scale.

2. Teacher prestige as measured by items thirty-four through fifty-five of the Student Perceptions Scale.

3. Teacher effectiveness as measured by items fifty-six through eighty-three of the Student Perceptions Scale.

4. Student ratings of the value of the course obtained from their responses to item thirty-three of the Student Perceptions Scale.

5. Student ratings of the value of the course obtained from their response to item eighty-five of the Student Perceptions Scale.

The following null hypotheses were developed relating to the
purpose of this study.

1. There is no significant difference among the four categories of grades the students expected to receive for the courses and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

2. There is no significant difference among the three categories of teacher self-ratings and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

3. There is no significant difference among the four categories of teacher rank as measured by the Teacher Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

4. There is no significant difference among the two categories of teacher title as measured by the Teacher Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

5. There is no significant difference among the three categories of teacher dress as measured by the Teacher Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

6. There is no significant relationship among student utterances, teacher positive evaluation, teacher smiling, student laughter,
and teacher acknowledgment of student feelings as measured by the Teacher Behaviors and Characteristics Checklist and the five measures of the Teacher Performance obtained from student responses to the Student Perceptions Scale.

7. There is no significant difference between the two categories of teacher negative evaluation as measured by the Teacher Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

8. There is no significant difference between the two categories of teacher positive experience as measured by the Teacher Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

9. There is no significant relationship among the five categories of Teacher Performance obtained from student responses to the Student Performance Scale.

ANALYSIS OF DATA

Due to the nature of the data collected in this study, three statistical methods of analysis were used, analysis of variance, the Pearson Correlation, and the Duncan's Test.
SUMMARY

This chapter was devoted to a description of the community and study population, instruments used, hypotheses to be tested, methodology and types of data collected, and how the data was to be analyzed.

Data pertaining to the characteristics and behaviors exhibited by instructors in the classroom, data pertaining to the extent to which these instructors were perceived by their students as warm and prestigious, and data pertaining to their effectiveness as teachers were gathered on the thirty-three instructors of thirty-three courses taught during Spring Quarter, 1975, at Montana State University.

Instructor characteristics and behaviors were counted and categorized in accordance with the Teacher Behavior and Characteristic Checklist, an instrument developed by the investigator. It includes eleven categories which are divided into two classes, Measures of Teacher Prestige and Measures of Teacher Warmth. The categories in Class I are: status and credits, dress, and the relation of positive experiences. Class II is made up of the following categories: student utterances, positive evaluation of student utterances, negative evaluation of student utterances, acknowledgment of student feelings and opinions, teacher speaks positively of others, teacher smiling, and student laughter.
Chapter 4

ANALYSIS AND RESULTS

The analysis and results of this study are presented in this chapter under the headings of analysis of data and discussion of results.

Hypotheses six and nine were tested at the .01 level of significance using the Pearson correlation. The other seven hypotheses were tested at the .05 level of significance using the least-square means analysis and the Duncan's Test. For these seven hypotheses, an analysis of variance was used to compare the five categories of teacher performance with seven different treatments. The F values computed for the five categories of teacher performance were found to be significant beyond the .05 level for each of these hypotheses. This significance could be explained by the difference in the characteristics of the instruments used to obtain the five measures of teacher performance. For example, whereas the raw scores obtained as measures of teacher warmth could range from one to thirty-three, the raw scores obtained as measures of course value—item 33—could range from only one to five. Thus, it was felt that no further statistical analysis of these results was necessary.

An analysis of variance was also used to compare the treatment and the interaction among the treatments and teacher performance for these seven hypotheses. Only when the computed F values were
significant beyond the .05 level was a Duncan's Test then applied.

Data was collected and processed on a total of thirty-three instructors representing the five academic colleges on the Montana State University campus (see Table 2, page 72).

ANALYSIS OF DATA

Null Hypothesis 1

Null hypothesis 1 states: There is no significant difference among the four categories of grades the students expected to receive for the courses and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

In testing the null hypothesis, the grades students expected to receive for the courses were divided into five categories—A, B, C, D and F, and 0 for those that did not respond to the question.

Table 3, page 94, presents the least-square means and analysis of variance for each of the five categories of grades and the five measures of teacher performance.

Table 4, page 95, presents the results of a Duncan's Test, which compared the least-square means of Table 3 for the five measures of teacher performance versus the five categories of expected grades. Only the findings which were significant beyond the .05 level are included in the table.

The following is a further description of the results shown
### Table 3

Least-Square Means and Analysis of Variance Results in Comparing Expected Grades and Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Expected Grades</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=</td>
<td>67</td>
<td>149</td>
<td>117</td>
<td>380</td>
<td>149</td>
<td>892</td>
</tr>
<tr>
<td>Warmth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>78.11</td>
<td>75.58</td>
<td>78.91</td>
<td>84.91</td>
<td>88.88</td>
<td>81.27</td>
<td></td>
</tr>
<tr>
<td>Prestige</td>
<td></td>
<td>33.52</td>
<td>29.85</td>
<td>31.35</td>
<td>34.09</td>
<td>35.71</td>
<td>32.90</td>
</tr>
<tr>
<td>Effectiveness</td>
<td></td>
<td>72.71</td>
<td>75.01</td>
<td>75.25</td>
<td>76.43</td>
<td>75.47</td>
<td>74.97</td>
</tr>
<tr>
<td>Course Value--</td>
<td></td>
<td>2.81</td>
<td>3.22</td>
<td>2.93</td>
<td>3.75</td>
<td>2.47</td>
<td>2.83</td>
</tr>
<tr>
<td>Item 23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Value--</td>
<td></td>
<td>3.08</td>
<td>3.65</td>
<td>3.37</td>
<td>3.00</td>
<td>2.76</td>
<td>3.17</td>
</tr>
<tr>
<td>Item 85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>38.05</td>
<td>41.06</td>
<td>40.23</td>
<td>38.36</td>
<td>37.46</td>
<td></td>
</tr>
</tbody>
</table>

### Analysis of Variance

<table>
<thead>
<tr>
<th>Item</th>
<th>DF</th>
<th>Mean-Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>4</td>
<td>448856.00000</td>
<td>4022.584 *</td>
</tr>
<tr>
<td>Expected Grade</td>
<td>4</td>
<td>1047.22266</td>
<td>9.386 *</td>
</tr>
<tr>
<td>Instructor X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected Grade</td>
<td>16</td>
<td>574.628906</td>
<td>5.060 *</td>
</tr>
<tr>
<td>Remainder</td>
<td>4435</td>
<td>111.583984</td>
<td></td>
</tr>
</tbody>
</table>

* Significant beyond the .05 level
Warmth. Student ratings of instructor warmth were significantly higher for students expecting to get D's and F's than (1) students expecting to get A's, (2) students who expected to get B's, (3) students who expected to get C's, and (4) students who did not respond to the question.

Table 4

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Expected Grade</th>
<th>Expected Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth A</td>
<td>when compared to</td>
<td>B, C, D&amp;F, 0</td>
</tr>
<tr>
<td>Warmth B</td>
<td>when compared to</td>
<td>C, D&amp;F</td>
</tr>
<tr>
<td>Warmth C</td>
<td>when compared to</td>
<td>D&amp;F, 0</td>
</tr>
<tr>
<td>Warmth D</td>
<td>when compared to</td>
<td>0</td>
</tr>
<tr>
<td>Prestige A</td>
<td>when compared to</td>
<td>C, D&amp;F, 0</td>
</tr>
<tr>
<td>Prestige B</td>
<td>when compared to</td>
<td>C, D&amp;F, 0</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>when compared to</td>
<td>A, B, C, D&amp;F</td>
</tr>
</tbody>
</table>

Also, students who expected to get C's rated their instructors significantly higher on the warmth scale than both students who expected to get B's and students who expected to get A's; and students who expected to get B's rated their instructors significantly warmer than students who expected to get A's.

Students who did not respond to the question rated their instructors significantly warmer than students who expected to get A's but
significantly less warm than students who expected to get B's, C's, and D's and F's.

**Prestige.** Students who expected to get D's and F's rated their instructors significantly higher on the prestige scale than both students who expected to get B's and students who expected to get A's. Students who expected to get C's rated their instructors significantly higher than both students who expected to get B's and students who expected to get A's. Students who did not respond to the question rated their instructors significantly higher than students who expected to get A's and students who expected to get B's.

**Effectiveness.** Student ratings of instructor effectiveness were significantly higher for students who did not respond to the question than (1) students who expected to get A's, (2) students who expected to get B's, (3) students who expected to get C's, and (4) students who expected to get D's and F's.

**Course Value—Item 33.** In comparing the least-square means for course value—item 33 and the five categories of expected grades, no difference was found that reached the .05 level of significance.

**Course Value—Item 85.** In comparing the least-square means for course value—item 85 and the five categories of expected grades, no difference was found that reached the .05 level of significance.

Thus, for the measure of warmth it was found that the higher the grade that the students expected to receive the lower they tended
to rate their instructors; and those students that did not respond rated their instructors lowest except for those students who expected to get A's.

The same relationship was found to exist for the measure of prestige. Students who expected higher grades rated their instructors lower; and students who did not respond rated their instructors higher than students who expected to get A's and B's.

For the measure of teacher effectiveness, no definite pattern was found between student ratings and the grades they expected to receive. Students who did not respond were found to rate their instructors the lowest.

Although none of the results for the two measures of course value, item 33 and item 85, reached significance at the .05 level, it was found that, in both cases, the higher the grade that the student expected to receive the higher he rated the value of the course.

Null Hypothesis 2

Null hypothesis 2 states: There is no significant difference between the three categories of teacher self-ratings and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

In testing the null hypothesis, teachers' self-ratings were divided into three categories, 3.0, 3.5, and 4.0. None of the teachers included in the study gave themselves a rating of 1, "very poor," or
Least-Square Means and Analysis of Variance Results in Comparing Teacher Self-Ratings and Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Teacher Self-Ratings</th>
<th>N=</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.0</td>
<td>3.5</td>
<td>4.0</td>
<td>Total</td>
</tr>
<tr>
<td>Warmth</td>
<td>76.85</td>
<td>87.09</td>
<td>78.53</td>
<td>80.83</td>
</tr>
<tr>
<td>Prestige</td>
<td>31.76</td>
<td>34.19</td>
<td>30.96</td>
<td>32.30</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>75.04</td>
<td>78.38</td>
<td>74.49</td>
<td>75.97</td>
</tr>
<tr>
<td>Course Value--Item 33</td>
<td>3.04</td>
<td>2.61</td>
<td>2.08</td>
<td>2.88</td>
</tr>
<tr>
<td>Course Value--Item 85</td>
<td>3.43</td>
<td>2.76</td>
<td>3.38</td>
<td>3.12</td>
</tr>
<tr>
<td>Total</td>
<td>38.02</td>
<td>41.01</td>
<td>38.07</td>
<td></td>
</tr>
</tbody>
</table>

**Analysis of Variance**

<table>
<thead>
<tr>
<th>Item</th>
<th>DF</th>
<th>Mean Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>4</td>
<td>668516.250000</td>
<td>6036.195 *</td>
</tr>
<tr>
<td>Self-rating</td>
<td>2</td>
<td>1474.239746</td>
<td>13.311 *</td>
</tr>
<tr>
<td>Instructor X Self-Rating</td>
<td>8</td>
<td>607.918457</td>
<td>5.489 *</td>
</tr>
<tr>
<td>Remainder</td>
<td>4350</td>
<td>110.751251</td>
<td></td>
</tr>
</tbody>
</table>

* Significant beyond the .05 level
Table 5, page 98, presents the least-square means and analysis of variance for each of the three categories of teacher self-ratings and the five measures of teacher performance.

Table 6 presents the results of a Duncan's Test which compared the least-square means of Table 5 for the five measures of teacher performance versus the three categories of teacher self-ratings. Only the findings which were significant beyond the .05 level are included in the table.

Table 6

Significant Results of the Duncan's Test for Teacher Self-Ratings Versus Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Teacher Self-Rating</th>
<th>when compared to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>3.5</td>
<td>3.0, 4.0</td>
</tr>
<tr>
<td>Warmth</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Prestige</td>
<td>3.5</td>
<td>3.0, 4.0</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>3.5</td>
<td>3.0, 4.0</td>
</tr>
</tbody>
</table>

The following is a further description of the results shown in Table 5.

Warmth. Teachers who rated themselves at 3.5 received significantly higher student ratings on the warmth scale than did teachers who rated themselves at 4.0 and 3.0. Teachers who rated themselves at 4.0
were rated significantly higher on warmth than teachers who rated themselves at 3.0.

**Prestige.** Teachers who rated themselves at 3.5 received significantly higher student ratings on the prestige scale than did teachers who rated themselves at 4.0 and 3.0.

**Effectiveness.** Teachers who rated themselves at 3.5 received significantly higher student ratings on the effectiveness scale than did teachers who rated themselves at 4.0 and 3.0.

**Course Value—Item 33.** In comparing the least-square means for course value—item 33 and the three categories of teacher self-ratings, no difference was found that reached the .05 level of significance.

**Course Value—Item 85.** In comparing the least-square means for course value—item 85 and the three categories of teacher self-ratings, no difference was found that reached the .05 level of significance.

Thus, it was found that teachers who rated themselves at 3.5 received significantly higher student ratings on the warmth, prestige, and effectiveness scales than did teachers who rated themselves at 4.0 and 3.0. Also, teachers who rated themselves at 4.0 received significantly higher student ratings on the warmth scale than did teachers who rated themselves at 3.0.
Null Hypothesis 3

Null hypothesis 3 states: There is no significant difference among the four categories of teacher rank as measured by the Teacher Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

In testing the null hypothesis, teacher rank was divided into four categories—Instructor, assistant professor, associate professor, and professor.

Table 7, page 102, presents the least-square means and analysis of variance for the four categories of teacher rank and the five measures of teacher performance.

Table 8, page 103, presents the results of a Duncan's Test, which compared the least-square means of Table 7 for the four categories of teacher rank. Only the findings which were significant beyond the .05 level are included in the table.

The following is a further description of the results shown in Table 7.

Warmth. Student ratings of teacher warmth were significantly higher for associate professors than both assistant professors and instructors. Also, professors received significantly higher student ratings of warmth than both instructors and assistant professors.
Table 7
Least-Square Means and Analysis of Variance Results in Comparing Teacher Rank and Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Teacher Rank</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Instructor</td>
<td>Assistant Professor</td>
<td>Associate Professor</td>
<td>Professor</td>
<td></td>
</tr>
<tr>
<td>N=</td>
<td>77</td>
<td>272</td>
<td>266</td>
<td>258</td>
<td>873</td>
</tr>
<tr>
<td>Warmth</td>
<td>74.48</td>
<td>73.89</td>
<td>82.36</td>
<td>81.52</td>
<td>78.06</td>
</tr>
<tr>
<td>Prestige</td>
<td>34.58</td>
<td>29.11</td>
<td>31.44</td>
<td>33.03</td>
<td>32.04</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>71.90</td>
<td>71.95</td>
<td>76.77</td>
<td>77.25</td>
<td>74.47</td>
</tr>
<tr>
<td>Course Value--Item 33</td>
<td>3.27</td>
<td>2.98</td>
<td>3.01</td>
<td>2.81</td>
<td>3.02</td>
</tr>
<tr>
<td>Course Value--Item 85</td>
<td>3.58</td>
<td>3.45</td>
<td>3.33</td>
<td>3.16</td>
<td>3.38</td>
</tr>
<tr>
<td>Total</td>
<td>37.56</td>
<td>36.28</td>
<td>39.38</td>
<td>39.56</td>
<td></td>
</tr>
</tbody>
</table>

Analysis of Variance

<table>
<thead>
<tr>
<th>Item</th>
<th>DF</th>
<th>Mean-Squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>4</td>
<td>887627.250000</td>
<td>8241.445 *</td>
</tr>
<tr>
<td>Rank</td>
<td>3</td>
<td>3121.545410</td>
<td>28.983 *</td>
</tr>
<tr>
<td>Instructor X Rank</td>
<td>12</td>
<td>1020.08911</td>
<td>9.471 *</td>
</tr>
<tr>
<td>Remainder</td>
<td>4345</td>
<td>107.7040025</td>
<td></td>
</tr>
</tbody>
</table>

* Significant beyond the .05 level
Prestige. Student ratings of teacher prestige were significantly higher for professors than both associate professors and assistant professors. Associate professors were rated significantly higher than were assistant professors and instructors received the highest ratings—significantly higher than those received by assistant professors, associate professors, and professors.

Table 8

Significant Results of the Duncan's Test for Teacher Rank Versus Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Teacher Rank</th>
<th>when compared to</th>
<th>Teacher Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>Instructor</td>
<td>Associate Professor</td>
<td>Professor</td>
</tr>
<tr>
<td>Warmth</td>
<td>Assistant Professor</td>
<td>Associate Professor</td>
<td>Professor</td>
</tr>
<tr>
<td>Prestige</td>
<td>Instructor</td>
<td>Assistant Professor</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Prestige</td>
<td>Assistant Professor</td>
<td>Associate Professor</td>
<td>Professor</td>
</tr>
<tr>
<td>Prestige</td>
<td>Professor</td>
<td>Associate Professor</td>
<td>Professor</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Associate Professor</td>
<td>Instructor</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Professor</td>
<td>Instructor</td>
<td>Assistant Professor</td>
</tr>
</tbody>
</table>

Effectiveness. Student ratings of teacher effectiveness were significantly higher for professors than both assistant professors and
instructors. Also, associate professors were rated significantly higher than both assistant professor and instructors.

**Course Value—Item 33.** In comparing the least-square means for course value—item 33 and the four categories of teacher rank, no difference was found that reached the .05 level of significance.

**Course Value—Item 85.** In comparing the least-square means for course value—item 85 and the four categories of teacher rank, no difference was found that reached the .05 level of significance.

Thus, the findings indicated that, for the measure of teacher warmth, the higher the rank of the teacher the higher he tended to be rated by the students. This relationship was also evident for the measure of teacher prestige with one notable exception. Instructors received the highest ratings—significantly higher than those received by assistant professors, associate professors, and professors. However, it was also found that professors were rated significantly higher than both associate professors and assistant professors, and associate professors were rated significantly higher than assistant professors.

The findings also indicated that, for the measure of teacher effectiveness, the higher the rank of the teacher the higher he tended to be rated by the students.
Null Hypothesis 4

Null hypothesis 4 states: There is no significant difference among the two categories of teacher title as measured by the Teacher Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

In testing the null hypothesis, teacher title was divided into two categories, doctor and non-doctor.

Table 9, page 106, presents the least-square means and analysis of variance for the two categories of teacher title and the five measures of teacher performance.

Table 10, page 107, presents the results of a Duncan's Test which compared the least-square means of Table 9 for the two categories of teacher title. Only the findings which were significant beyond the .05 level are included in the table.

The following is a further description of the results shown in Table 9.

**Warmth.** Student ratings of teacher warmth were significantly higher for teachers with the title of doctor than those with a non-doctor title.

**Prestige.** Student ratings of teacher prestige were significantly higher for teachers with the title of doctor than those with a non-doctor title.
Table 9
Least-Square Means and Analysis of Variance Results in Comparing Teacher Title and Teacher Performance

| Teacher Performance | Teacher Title | | |
|---------------------|---------------|----------------|
|                     | Doctor        | Non-Doctor     | Total |
|                     | N=            |                |       |
| Warmth              | 79.94         | 78.48          | 79.21 |
| Prestige            | 34.21         | 30.76          | 32.49 |
| Effectiveness       | 74.55         | 75.09          | 74.82 |
| Course Value--      | 2.87          | 2.98           | 2.93  |
| Item 2, 3           |                |                |       |
| Course Value--      | 3.12          | 3.39           | 3.26  |
| Item 85             |                |                |       |
| Total               | 38.94         | 38.14          |       |

Analysis of Variance

<table>
<thead>
<tr>
<th>Item</th>
<th>DF</th>
<th>Means-Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>4</td>
<td>782145.000000</td>
<td>6986.801 *</td>
</tr>
<tr>
<td>Title</td>
<td>1</td>
<td>453.740967</td>
<td>4.053 *</td>
</tr>
<tr>
<td>Instructor X</td>
<td>4</td>
<td>398.960449</td>
<td>3.564 *</td>
</tr>
<tr>
<td>Title</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remainder</td>
<td>4355</td>
<td>111.946030</td>
<td></td>
</tr>
</tbody>
</table>

* Significant beyond the .05 level
Effectiveness. In comparing the least-square means for effectiveness and the two categories of teacher title, no difference was found that reached the .05 level of significance.

Table 10

Significant Results of the Duncan's Test for Teacher Title Versus Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Teacher Title</th>
<th>Teacher Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>Doctor</td>
<td>when compared to</td>
</tr>
<tr>
<td>Prestige</td>
<td>Doctor</td>
<td>when compared to</td>
</tr>
</tbody>
</table>

Course Value—Item 33. In comparing the least-square means for course value—item 33 and the two categories of teacher title, no difference was found that reached the .05 level of significance.

Course Value—Item 85. In comparing the least-square means for course value—item 85 and the two categories of teacher title, no difference was found that reached the .05 level of significance.

Thus, for both the measures of teacher warmth and teacher prestige, student ratings were significantly higher for teachers with the title of doctor than those with a non-doctor title.

Null Hypothesis 5

Null hypothesis 5 states: There is no significant difference among the three categories of teacher dress as measured by the Teacher
Table 11
Least-Square Means and Analysis of Variance Results in Comparing Teacher Dress and Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>1.0-1.9</th>
<th>2.0-2.9</th>
<th>3.0-4.0</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=</td>
<td>249</td>
<td>223</td>
<td>265</td>
<td>747</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>75.78</th>
<th>82.67</th>
<th>77.80</th>
<th>78.74</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prestige</td>
<td>31.01</td>
<td>32.33</td>
<td>29.65</td>
<td>30.10</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>72.20</td>
<td>76.79</td>
<td>77.35</td>
<td>75.45</td>
</tr>
<tr>
<td>Course Value—Item 33</td>
<td>2.85</td>
<td>2.91</td>
<td>3.12</td>
<td>2.96</td>
</tr>
<tr>
<td>Course Value—Item 85</td>
<td>3.27</td>
<td>3.23</td>
<td>3.51</td>
<td>3.34</td>
</tr>
<tr>
<td>Total</td>
<td>37.02</td>
<td>39.59</td>
<td>38.29</td>
<td></td>
</tr>
</tbody>
</table>

Analysis of Variance

<table>
<thead>
<tr>
<th>Item</th>
<th>DF</th>
<th>Means-Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>4</td>
<td>1031926.500000</td>
<td>9533.328 *</td>
</tr>
<tr>
<td>Dress</td>
<td>2</td>
<td>1979.422372</td>
<td>18.287 *</td>
</tr>
<tr>
<td>Instructor X Dress</td>
<td>8</td>
<td>872.572266</td>
<td>8.061 *</td>
</tr>
<tr>
<td>Remainder</td>
<td>3720</td>
<td>109.244080</td>
<td></td>
</tr>
</tbody>
</table>

* Significant beyond the .05 level
Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

In testing the null hypothesis, teacher dress was divided into three categories—1.0-1.9, 2.0-2.9, and 3.0-4.0.

Table 11, page 108, presents the least-square means and analysis of variance for the three categories of teacher dress and the five categories of teacher performance.

Table 12 presents the results of a Duncan's Test which compared the least-square means of Table 11 for the three categories of teacher dress. Only the findings which were significant beyond the .05 level are included in the table.

Table 12

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Teacher Dress</th>
<th>Teacher Dress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>2.0-2.9</td>
<td>when compared to 1.0-1.9, 3.0-4.0</td>
</tr>
<tr>
<td>Warmth</td>
<td>3.0-4.0</td>
<td>when compared to 1.0-1.9</td>
</tr>
<tr>
<td>Prestige</td>
<td>2.0-2.9</td>
<td>when compared to 3.0-4.0</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>2.0-2.9</td>
<td>when compared to 1.0-1.9</td>
</tr>
</tbody>
</table>

The following is a further description of the results shown in Table 11.
Warmth. Student ratings of teacher warmth were significantly higher for teachers in the dress category 2.0-2.9 than teachers in the 1.0-1.9 category and teachers in the 3.0-4.0 category. Also, teachers in the 3.0-4.0 category were rated significantly higher than teachers in the 1.0-1.9 category.

Prestige. For the measure of teacher prestige, teachers in the 2.0-2.9 category received significantly higher student ratings than teachers in the 3.0-4.0 category.

Effectiveness. For the measure of teacher effectiveness, teachers in the 2.0-2.9 category were rated significantly higher by the students than teachers in the 1.0-1.9 category.

Course Value—Item 33. In comparing the least-square means for course value—item 33 and the three categories of teacher dress, no difference was found that reached the .05 level of significance.

Course Value—Item 85. In comparing the least-square means for course value—item 85 and the three categories of teacher dress, no difference was found that reached the .05 level of significance.

Thus, for the measure of warmth, teachers in the 2.0-2.9 category were rated highest followed by teachers in the 3.0-4.0 category and then by teachers in the 1.0-1.9 category.

Also, for the measure of prestige, teachers in the 2.0-2.9 category were rated highest; however, only when compared to teachers
in the 3.0-4.0 category did the difference reach significance beyond the .05 level. For the measure of effectiveness, teachers in the 2.0-2.9 category were rated significantly higher than teachers in the 1.0-1.9 category.

Null Hypothesis 6

Null hypothesis 6 states: There is no significant relationship among student utterances, teacher positive evaluation, teacher smiling, student laughter, and teacher acknowledgment of student feelings as measured by the Teacher Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to Student Perceptions Scale.

Table 13, page 112, presents the correlation coefficients for the five categories of teacher behaviors and characteristics versus the five categories of Teacher Performance.

The null hypothesis that the correlation coefficients were 0 was tested at the .01 level of significance.

Negative relationships, significant at the .01 level, were found to exist between (1) student ratings of teacher warmth and student utterances, (2) student ratings of teacher warmth and teacher positive evaluation, (3) student ratings of teacher warmth and teacher acknowledgment of student feelings, (4) student ratings of teacher warmth and teacher smiling, (5) student ratings of teacher effectiveness and student utterances, (6) student ratings of teacher effectiveness
and teacher positive evaluation, (7) student ratings of teacher effectiveness and teacher acknowledgment of feelings, and (8) student ratings of teacher effectiveness and teacher smiling.

Table 13
Correlation Coefficients for Teacher Behaviors and Characteristics Versus Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Student Utterances</th>
<th>Teacher Positive Evaluation</th>
<th>Teacher Acknowledgment of Student Feelings</th>
<th>Teacher Smiling</th>
<th>Student Laughter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>-.22*</td>
<td>-.26*</td>
<td>-.19*</td>
<td>-.15*</td>
<td>-.04</td>
</tr>
<tr>
<td>Prestige</td>
<td>-.00</td>
<td>-.05</td>
<td>-.00</td>
<td>-.06</td>
<td>-.05</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>-.26*</td>
<td>-.26*</td>
<td>-.34*</td>
<td>-.19*</td>
<td>.19*</td>
</tr>
<tr>
<td>Course Value—Item 33</td>
<td>-.03</td>
<td>-.03</td>
<td>-.09</td>
<td>.08</td>
<td>.08</td>
</tr>
<tr>
<td>Course Value—Item 85</td>
<td>-.02</td>
<td>-.03</td>
<td>-.09</td>
<td>.07</td>
<td>.04</td>
</tr>
</tbody>
</table>

* Significant at .01 level

A positive relationship, significant at the .01 level, was found to exist between student ratings of teacher effectiveness and student laughter.

Null Hypothesis 7

Null hypothesis 7 states: There is no significant difference between the two categories of teacher negative evaluation as measured
by the Teacher Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

In testing the null hypothesis, teacher negative evaluation was divided into two categories—0 and 1-8.

Table 14, page 114, presents the least-square means and analysis of variance for the two categories of teacher negative evaluation and the five measures of Teacher Performance.

Since the F scores for the group x categories' totals were not significant at the .05 level, a Duncan's test was not conducted.

Null Hypothesis 8

Null hypothesis 8 states: There is no significant difference between the three categories of teacher positive experiences as measured by the Teacher Behaviors and Characteristics Checklist and the five measures of Teacher Performance obtained from student responses to the Student Perceptions Scale.

In testing the null hypothesis, teacher positive experiences was divided into three categories—0, 1-6, and 11+.

Table 15, page 115, presents the least-square means and analysis of variance for the three categories of teacher positive experiences and the five measures of teacher performance.

Table 16, page 116, presents the results of a Duncan's Test, which compared the least-square means of Table 15 for the three
Table 14

Least-Square Means and Analysis of Variance Results in Comparing Teacher Negative Evaluation and Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Teacher Negative Evaluation</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=4</td>
<td>0</td>
<td>1 - 7</td>
<td>Total</td>
</tr>
<tr>
<td>Warmth</td>
<td>383</td>
<td>77.63</td>
<td>79.67</td>
<td>78.65</td>
</tr>
<tr>
<td>Prestige</td>
<td>490</td>
<td>31.43</td>
<td>31.49</td>
<td>31.45</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>490</td>
<td>74.11</td>
<td>75.66</td>
<td>74.88</td>
</tr>
<tr>
<td>Course Value--Item 33</td>
<td></td>
<td>2.86</td>
<td>3.05</td>
<td>2.95</td>
</tr>
<tr>
<td>Course Value--Item 85</td>
<td></td>
<td>3.26</td>
<td>3.40</td>
<td>3.33</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>37.86</td>
<td>38.66</td>
<td></td>
</tr>
</tbody>
</table>

Analysis of Variance

<table>
<thead>
<tr>
<th>Item</th>
<th>DF</th>
<th>Means-Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>4</td>
<td>1179252.000000</td>
<td>10520.687 *</td>
</tr>
<tr>
<td>Negative Evaluation</td>
<td>1</td>
<td>683.693604</td>
<td>6.100 *</td>
</tr>
<tr>
<td>Instructor X Negative Evaluation</td>
<td>4</td>
<td>185.598022</td>
<td>1.656</td>
</tr>
<tr>
<td>Remainder</td>
<td>435</td>
<td>112.088852</td>
<td></td>
</tr>
</tbody>
</table>

* Significant beyond the .05 level
Table 15
Least-Square Means and Analysis of Variance Results
in Comparing Teacher Positive Experiences and
Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Teacher Positive Experiences</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1-6</td>
<td>11+</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N= 420</td>
<td>347</td>
<td>106</td>
<td>873</td>
<td></td>
</tr>
<tr>
<td>Warmth</td>
<td>78.70</td>
<td>77.42</td>
<td>83.53</td>
<td>79.88</td>
<td></td>
</tr>
<tr>
<td>Prestige</td>
<td>31.93</td>
<td>29.24</td>
<td>36.86</td>
<td>32.68</td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>73.70</td>
<td>75.80</td>
<td>77.34</td>
<td>75.62</td>
<td></td>
</tr>
<tr>
<td>Course Value--</td>
<td>Item 33</td>
<td>2.98</td>
<td>3.12</td>
<td>2.44</td>
<td>2.85</td>
</tr>
<tr>
<td>Course Value--</td>
<td>Item 85</td>
<td>3.35</td>
<td>3.54</td>
<td>2.66</td>
<td>3.18</td>
</tr>
<tr>
<td>Total</td>
<td>38.13</td>
<td>37.83</td>
<td>40.57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis of Variance

<table>
<thead>
<tr>
<th>Item</th>
<th>DF</th>
<th>Means-Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>4</td>
<td>863769.500000</td>
<td>7827.191 *</td>
</tr>
<tr>
<td>Positive Experiences</td>
<td>2</td>
<td>1585.481934</td>
<td>14.367 *</td>
</tr>
<tr>
<td>Instructor X Positive</td>
<td>8</td>
<td>794.514648</td>
<td>7.200 *</td>
</tr>
<tr>
<td>Experiences</td>
<td></td>
<td>4350</td>
<td>110.354935</td>
</tr>
<tr>
<td>Remaider</td>
<td></td>
<td>4350</td>
<td>110.354935</td>
</tr>
</tbody>
</table>

* Significant beyond the .05 level
categories of teacher positive experiences. Only the findings which were significant beyond the .05 level are included in the table.

Table 16

Significant Results of the Duncan's Test for Teacher Positive Experiences Versus Teacher Performance

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Teacher Positive Experiences</th>
<th>Teacher Positive Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>11+ when compared to 0, 1-6</td>
<td></td>
</tr>
<tr>
<td>Prestige</td>
<td>0 when compared to 1-6</td>
<td>1-6</td>
</tr>
<tr>
<td>Prestige</td>
<td>11+ when compared to 0, 1-6</td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>1-6 when compared to 0</td>
<td>1-6</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>11+ when compared to 1-6, 0</td>
<td></td>
</tr>
</tbody>
</table>

The following is a further description of the results shown in Table 15.

**Warmth.** Student ratings of teacher warmth were significantly higher for teachers in the 11+ category of teacher positive experiences than teachers in the 1-6 category and teachers in the 0 category.

**Prestige.** Student ratings of teacher prestige were significantly higher for teachers in the 11+ category of teacher positive experiences than teachers in the 1-6 category and teachers in the 0 category. Also, teachers in the 0 category were rated significantly higher on the prestige scale than teachers in the 1-6 category.
Effectiveness. Student ratings of teacher effectiveness were significantly higher for teachers in the 11+ category of teacher positive experiences than teachers in the 1-6 category and teachers in the 0 category. Also, teachers in the 1-6 category were rated significantly more effective than teachers in the 0 category.

Course Value—Item 33. In comparing the least-square means for course value—item 33 and the three categories of teacher positive experiences, no difference was found that reached the .05 level of significance.

Course Value—Item 85. In comparing the least-square means for course value—item 85 and the three categories of teacher positive experiences, no difference was found that reached the .05 level of significance.

Thus, for the measure of teacher warmth teachers who related the most positive experiences were rated the warmest by the students. Teachers who related the most positive experiences were also rated the most prestigious. Although it was found that teachers who did not relate any positive experiences were rated more prestigious than teachers in the 1-6 category.

For the measure of teacher effectiveness, teachers who related the most positive experiences were again rated the highest by students. The findings indicated that the more the teacher spoke of his positive experiences the higher he was rated on the effectiveness
Null Hypothesis 9

Null hypothesis 9 states: There is no significant relationship among the five categories of Teacher Performance obtained from student responses to the Student Performance Scale.

In testing the null hypothesis, teacher performance was divided into five categories—teacher warmth, teacher prestige, teacher effectiveness, teacher course value—item 33, and teacher course value—item 85.

Table 17 presents the correlation coefficients for the five categories of teacher performance versus the five categories of Teacher Performance.

<table>
<thead>
<tr>
<th>Teacher Performance</th>
<th>Warmth</th>
<th>Prestige</th>
<th>Effectiveness</th>
<th>Course Value Item 33</th>
<th>Course Value Item 85</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>X</td>
<td>.47*</td>
<td>.48*</td>
<td>-.25*</td>
<td>-.36*</td>
</tr>
<tr>
<td>Prestige</td>
<td>.47*</td>
<td>X</td>
<td>.11</td>
<td>-.38*</td>
<td>-.47*</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>.48*</td>
<td>.11</td>
<td>X</td>
<td>-.04</td>
<td>-.12</td>
</tr>
<tr>
<td>Course Value— Item 33</td>
<td>-.25*</td>
<td>-.38*</td>
<td>-.04</td>
<td>X</td>
<td>.53*</td>
</tr>
<tr>
<td>Course Value— Item 85</td>
<td>-.36*</td>
<td>-.47*</td>
<td>-.12</td>
<td>.53*</td>
<td>X</td>
</tr>
</tbody>
</table>

* Significant beyond .01 level
The null hypothesis that the correlation coefficients were 0 was tested at the .01 level of significance.

Positive relationships, significant at the .01 level, were found to exist between (1) student ratings of teacher warmth and teacher prestige, (2) student ratings of teacher warmth and effectiveness, and (3) student ratings of course value on item 33 and on item 85.

Negative relationships, significant at the .01 level, were found to exist between (1) student ratings of teacher warmth and course value item 33, (2) student ratings of teacher warmth and course value item 85, (3) student ratings of teacher prestige and course value item 33, and (4) student ratings of teacher prestige and course value item 85.

DISCUSSION OF RESULTS

In comparing the grades that the students expected to receive for their courses with the way in which they rated their teachers on five different scales of teacher performance, definite relationships were noted for the measures of teacher warmth and teacher prestige. The findings indicated that for both measures the higher the grades that the students expected to receive the lower they tended to rate their instructors. The findings related to the measure of teacher warmth are somewhat unexpected. The literature indicates that people
tend to like those that like them; and it may be theorized that students who think their teachers are going to give them a good grade would see their teachers as liking them, while students expecting to receive low grades might tend to think of their teachers as disliking them. Thus, it would follow from this view that students expecting to receive high grades would tend to rate their teachers higher on the warmth scale than students expecting low grades. The results of this study indicated just the opposite.

It might also be expected that students expecting high grades would tend to value the course more than students expecting low grades. Although none of the results for the two measures of course value reached significance at the .05 level, it was found that, in both cases, the higher the grade the students expected to receive the higher they rated the value of the course.

The findings relating teacher self-ratings to the five measures of teacher performance showed that teachers who saw themselves as being somewhere between "average" and "above average" in effectiveness were rated higher than the other teachers for the measures of warmth, prestige, and effectiveness. Also, teachers who rated themselves as "above average" in effectiveness were seen by their students as being warmer than teachers who saw themselves as "average." It is interesting to note that none of the teachers included in the study rated themselves as either "very good" or "very poor."
When teacher rank was compared to the five measures of teacher performance, a positive relationship was found to exist between teacher rank and student ratings of teacher warmth. Also, the higher the rank of the teacher the more students tended to view him with prestige—with one notable exception. Instructors received the highest ratings. This exception might be explained by the fact that both of the instructors included in the study were young, and possibly their appointments as instructors were viewed by students as prestigious achievements. The findings that teacher rank and prestige appear to be positively related was expected and appears to be in agreement with the results of studies by Haiman (1949), Mausner (1953), Goldberg and Iverson (1965), and Kelman and Hofland (1953), which indicated that information about a source's experience, training, and competence as reported by other people seems relevant to the amount of prestige attributed to him. With this in mind, the results showing a positive relationship between teacher rank and prestige appears to be supportive of the studies by Sarason and Minard (1963), Krumboltz (1968), Monton (1965), et al., which provided evidence that people of high prestige are more effective than people of low prestige in shaping the opinions of others.

Although none of the results for the two measures of course value reached significance at the .05 level, it is interesting to note that, in both cases, the higher the rank of the teacher the lower
student ratings of the value of his course tended to be. It may be that teachers younger and of lower academic rank approach the teaching task with greater vigor and ambition.

Concerning teacher title, teachers having a doctor's degree were seen by the students as warmer and more prestigious than those that did not. These findings were not unexpected. The finding of a positive relationship between teacher title and prestige is consistent with the findings of Haimon (1949), Bochner and Insko (1966), and Strong and Nixon (1971b), which suggest that an individual's title is positively related to the extent to which he is held in esteem. When comparisons were made between teacher dress and the five measures of teacher performance, the results showed that teachers who tended to dress more in ties and dress pants, sports coats and dress pants, and suits were seen by students as being more warm than both teachers who dressed more casually and teachers who wore only sports coats and suits. The significant findings for the measure of prestige indicated only that teachers who tended to dress more in ties and dress pants, sports coats and dress pants, and suits received higher student ratings than teachers who wore only sports coats and suits. If individuals who wear only sports coats and suits are considered best dressed, then the results in regard to the measure of prestige are not supportive of the findings of Lefkowitz, Blake, and Mowton (1955), Mills and Aronson (1965), and Sarason and Menard (1963), which suggest that the
better an individual dresses the more he is likely to be seen as prestigious. However, these results are consistent with the findings of these studies if one is considered best-dressed if he wears sports coats and suits some of the time and dresses more casually some of the time.

The results also showed that teachers who tended to dress more in ties and dress pants, sports coats and dress pants, and suits were seen by students as being more effective than teachers who dressed more casually. This result is consistent with the findings of the studies just cited which also indicate that dress is positively related to one's ability to produce behavior change and opinion change in another.

When student utterances, teacher positive evaluation, teacher smiling, student laughter, and teacher acknowledgment of student feelings were compared with the five measures of teacher performance, several interesting results were obtained which appear to be inconsistent with some of what the literature indicates. Significant negative relationships were found to exist between teacher warmth and teacher smiling, and between teacher warmth and teacher positive evaluation. However, the results of studies by Krumboltz, Varenhorst, and Thoreson (1967), Strong and Nixon (1971), and Schmidt and Strong (1971) indicate that smiling conveys warmth. Also, such verbal responses as "mmm-hmm," "good," "okay," "yeah," etc., which were considered in this study to
be indicators of teacher positive evaluation, might also be construed as indicators of warmth (Krasner (1958). Negative relationships were also found to exist between teacher smiling and teacher effectiveness and between teacher positive evaluations and teacher effectiveness. Yet, evidence from several studies supports the hypothesis that social reinforcement is more effective when it comes from a warm individual than when it comes from a cold individual (Ferguson and Buss, 1960; Sapolsky, 1960; and Krasner, 1958). The thirty studies reported by Krasner (1958) also provide evidence that positive evaluations like "mmm-hmm," "good," "okay," "yeah," etc. are effective reinforcers.

A possible explanation for these apparent inconsistencies is provided by the hypothesis that a teacher can behave too warmly and thus lose his effectiveness as a reinforcer. It appears that behaviors maintained by social reinforcers are responsive to a condition of relative satiation for such reinforcers (Gerwitz and Baer, 1958; Simkins, 1961). Also, the results of several studies suggest that a source might be more effective in producing behavior change in another by expressing different orders of warmth and/or anger (Johnson, 1971; Aronson and Linder, 1965; Sigall and Aronson, 1967; and Deutsch, Epstein, Canavan, and Gumpert, 1967). One could conclude that a teacher who expresses invariant warmth toward his students and always evaluates their responses in a positive way does not discern or discriminate very well, or that it is "just his style" and therefore
it is probably not very meaningful to be liked and/or praised by such a person.

Although the results of the comparison made between teacher negative evaluation and the five measures of teacher performance were not statistically significant, it is noteworthy that the trends were in a direction that is supportive of the above explanation. For all five measures of teacher performance, teachers who at times evaluated student responses negatively received higher student ratings than teachers who never negatively evaluated student responses.

When the number of times teachers spoke of their positive experiences to their classes was compared to the five measures of teacher performance, the significant findings indicated that the more a teacher related his positive experiences the higher he tended to be rated in terms of warmth and effectiveness and also, with one exception, in terms of prestige. The results for the measure of prestige appears to be supportive of the findings of Haiman (1949), Mausner (1953), Goldberg and Iverson (1965), and Kelman and Hovland (1953), which showed that information about a source's experience, training, and competence as reported by other people seems relevant to the amount of prestige that is attributed to him. Although it was found that teachers who did not relate any positive experiences were rated more prestigious than teachers in the 1-6 category, a possible explanation for this finding is that a teacher who discloses little of himself
may be more easily perceived by his students as being different from them and not having the same human qualities as they. Such a teacher might be more easily put on a pedestal and viewed with prestige. This thinking might also explain why the results of this study showed a positive relationship between warmth and the relating of positive experiences. The literature indicates that individuals tend to like others who appear to be like them and also tend to see these others as liking them. Thus, teachers who talk little of their personal experiences and are, therefore, perceived by their students as being different than they might be viewed as less caring and human than teachers who disclose more of themselves. The results for the measure of teacher effectiveness are also consistent with the literature (Sarason and Minard, 1963; Krumboltz, 1968; Mouton, 1955; et al), which indicates that people of high prestige are more successful than people of low prestige in shaping the opinions of others.

When the interrelationships among the five measures of teacher performance were analyzed statistically, it is interesting that positive relationships were found to exist between teacher warmth and teacher prestige, between teacher warmth and teacher effectiveness, and between student ratings of course value on item 33 and on item 85. The findings that teacher warmth and prestige seem to be positively correlated is consistent with the results of this study cited earlier, that both teacher warmth and prestige are negatively correlated with teacher
positive evaluations. The positive relationship that was found to exist between teacher warmth and teacher effectiveness is in agreement with the several studies cited previously in this section that indicated that social reinforcement is more effective when it comes from a warm individual than when it comes from a cold individual. Furthermore, the finding that teacher warmth and effectiveness are positively related is at least not inconsistent with the findings cited earlier in this section that a negative relationship seems to exist between teacher warmth and teacher positive evaluation and between teacher positive evaluation and teacher effectiveness.

Of course, it was expected that student ratings of course value on item 33 would be positively related to student ratings of course value on item 85.

The following conclusions were developed upon an analysis of this study.

1. In looking at the grades the students expected to receive for their courses and the way in which they rated their teachers on the five different scales of teacher performance of the Student Perceptions Scale, it was found that the higher the grades the students expected to receive the less they tended to view their teachers as being warm and prestigious. For the measure of teacher effectiveness, no definite relationship was found between student ratings and the grades they expected to receive. For the two measures of course value,
the results did not reach significance at the .05 level.

2. As measured by the Student Perceptions Scale, teachers who rated themselves somewhere between "average" and "above average" in effectiveness were seen by their students as being more warm, more prestigious, and more effective than teachers who did not. Also, teachers who rated themselves as "above average" in effectiveness were seen by their students as being warmer than teachers who saw themselves as "average." For the two measures of course value, the results did not reach significance at the .05 level.

3. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, the higher the rank of the teacher the more he tended to be seen by his students as being warm, prestigious, and effective—with one notable exception. Teachers with the rank of instructor were viewed with the more prestige by students. For the two measures of course value, the results did not reach significance at the .05 level.

4. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, teachers having a doctor's degree were seen by the students as being warmer and more prestigious than those who did not have one. The findings relating to teacher effectiveness and the two measures of course value did not reach significance at the .05 level.

5. As measured by the Student Perceptions Scale and the
Teacher Behaviors and Characteristics Checklist, teachers who tended to dress more in ties and dress pants, sports coats and dress pants, and suits were seen by students as being more warm than both teachers who dressed more casually and teachers who wore only sports coats and suits. Teachers who tended to dress more in ties and dress pants, sports coats and dress pants, and suits were viewed with more prestige than teachers who wore only sports coats and suits, and were seen as being more effective than teachers who dressed more casually. For the two measures of course value, the results did not reach significance at the .05 level.

6. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, teachers were seen as being warmer and more effective the less they positively evaluated student responses, the less they acknowledged student feelings, the less they smiled, and the less their students spoke in class. Also, teachers were seen as being more effective the more student laughter tended to occur in their classrooms. The findings relating to teacher prestige and the two measures of course value did not reach significance at the .05 level.

7. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, the number of times a teacher negatively evaluates his students' responses had no significant effect upon student perceptions of teacher warmth, teacher
prestige, teacher effectiveness, or the two measures of course value.

8. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, the more a teacher related his positive experiences to his class the more he was seen by his students as being an effective teacher. Also, teachers who related the most positive experiences were seen as being the most warm and the most prestigious. Although teachers who did not talk about any positive experiences were seen as being more prestigious than those who talked about only a few. For the two measures of course value, the results did not reach significance at the .05 level.

9. In looking at the interrelationships among the five categories of teacher performance as measured by the Student Perceptions Scale, it was found that the more a teacher was seen by his students as being warm the more he was also seen as being prestigious and effective, and the less his course was valued by his students. It was also found that the more a teacher was seen as being prestigious the less his course was valued; and, finally, students tended to answer the two questions used to measure the extent to which they valued the courses in a consistent way. The findings indicated that no significant relationship exists between teacher prestige and teacher effectiveness or between teacher effectiveness and course value.
The purpose of this chapter is to summarily present and analyze the data pertaining to this study. Each of the nine hypotheses written for the study were described with regard to the degree of significance of the relationships found among the five measures of teacher performance and certain teacher behaviors and characteristics. A discussion of the significant findings in relation to the investigator's expectations and to what the literature indicates was presented.

Chapter 5 contains a summary of the study with reference to conclusions and recommendations.
Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Chapter 5 contains a summary of this study, the conclusions, and the recommendations for further research.

SUMMARY

Adult and higher education is a topic of vital interest in our nation today. The day is here when man, in a world of increased technology, increased leisure time, and increased social interaction is finding that education is indeed a life-long process. Along with this increased significance of education is a greater need for more and better adult educators.

Probably no aspect of education has been discussed with greater frequency, with as much deep concern, or by more educators and citizens than has that of teacher effectiveness—how to define it, how to identify it, how to measure it, how to evaluate it, and how to detect and remove obstacles to its achievement . . . . But findings about the competence of teachers are inconclusive and piecemeal; and little is presently known for certain about teacher excellence (Biddle and Ellens, 1964:5).

Studies have been done which go far to answer the question as to the sort of procedures which have been found successful in establishing good relationships in a classroom and thus contribute to teacher effectiveness. However, they do not help the teacher to answer other questions which arise on actually encountering students.

"Have I the correct sort of personality?" "Will I be able to win and hold their attention?"
It was the intent of this study to determine and describe some of the characteristics which constitute the "correct sort of personality" and will enable an instructor to win and hold the students' attention.

Two characteristics which may play an important role in the teaching-learning process are personal warmth and social prestige. It appears that warmth or positive regard from others is a genuine need of each individual and thus constitutes a powerful social reinforcer. A teacher who responds to his students in such a way as to contribute positively to their feelings of self-worth becomes an important person to those students and capable of modifying their behavior. The effectiveness of a teacher's social reinforcement and also his potency as a social model are further enhanced if he is held in esteem by his students. In other words, not only is it rewarding to an individual to be around another who expresses positive feelings toward him, it is even more rewarding if that person is of high prestige.

David G. Ryans (1960) notes that it is of interest to consider the kinds of behavior people remember about teachers and to raise the question of relative importance of such remembered characteristics with respect to behaviors normally assumed to characterize teaching. Using a critical-incidents approach in his teacher characteristics study, Ryan found that most teaching incidents reported (descriptions of actual observed behavior believed to have contributed to the judgment of
superiority in inferiority of the teachers) involved personal or social
teacher behaviors, even though directions had given the judges com­
plete freedom in naming critical incidents. He then poses and answers
the following question:

Are personal or social characteristics more important than a
teacher's scholarliness, the teaching procedures followed, unique
demonstrations, or the content taught? One may well doubt they
are more important, but they may be equally important. We ques­
tion why more people often do not mention incidents involving the
teaching learning process per se . . . all of us seek personal
reinforcement and it is in the area of the personal or social
characteristics of teachers and other persons that we best recall
events (Ryans, 1969:72).

It is the contention of the writer that the more a teacher is
held in esteem by his students and the more he contributes verbally
and nonverbally to their feelings of self-worth the more effective
he will be in influencing their behavior. A teacher is thus in a
position to reinforce learning in his students in either an appropriate
or inappropriate way, either wittingly or unwittingly. For him to be
an effective teacher he should be aware of those verbal and nonverbal
behaviors which are indicators of warmth and acceptance to his students,
and also those characteristics and behaviors which might cause him to
be held in esteem by his students.

Asch (1946:258) points out:

We look at a person and immediately a certain impression of
his character forms itself in us. A glance, a few spoken words
are sufficient to tell us a story about a highly complex matter.
We know that such impressions form with remarkable rapidity and
with great ease. Subsequent observation may enrich or upset our
first view, but we can no more prevent its rapid growth than we
can avoid perceiving a given visual object or hearing a melody.
We also know that this process, though often imperfect, is also
at times extraordinarily sensitive.

It is for these reasons that the characteristics of teacher
warmth and prestige are important aspects of the teaching-learning
process which need investigation.

This study was an attempt to determine the rate of occurrence
of selected characteristics and behaviors of college instructors at
Montana State University which, based on the writer's educational
experiences as a student and research in the areas of personality
theory, communication theory, counseling, and education, seem to be
important factors in the teaching-learning process.

In addition, the problem was to determine the interrelation­
ships among the rate of occurrence of these characteristics and behav­
iors, student perceptions of teacher warmth and prestige, and teacher
effectiveness.

Thus, three types of data were produced by this study.
Teacher behaviors and characteristics were counted and categorized in
accordance with the Teacher Behaviors and Characteristic Checklist,
an instrument developed by the investigator. Student perceptions of
teacher warmth, teacher prestige, and teacher effectiveness were
measured by the Student Perceptions Scale. Finally, student ratings
of course value, teacher self-ratings, and the grades students expected
to receive for the course were obtained.
The focus of the literature review was upon three areas: (1) warmth and its effect upon learning; (2) behavioral cues of warmth; and (3) prestige and its affect upon learning.

The summary of the literature relating to warmth and its affect upon learning indicated that the dimension of warmth in the behavior of teachers and examiners has a major influence on the behavior of those with whom they interact. Thus, warmth may be an important factor in determining a teacher's effectiveness.

Warmth is an important quality in a person which seems to carry more weight than others in establishing a view of an individual's personality. Warmth from others appears to be a genuine need of each individual and thus constitutes a powerful social reinforcer. Many studies have demonstrated the effectiveness of minimal verbal and nonverbal cues of a teacher or an examiner in conditioning a subject's verbal behavior and in some cases nonverbal behavior. Some of the cues which can be construed as indicants of warmth or approval are verbal responses such as "mmm-hmm," "good," "okay," "yeah," etc. Nonverbal behaviors shown to be effective reinforcers are headnods and smiles.

Evidence from several studies supports the hypothesis that social reinforcement is more effective when it comes from a warm individual than when it comes from a cold individual. Furthermore, it appears that a hostile experimenter retards learning in comparison to
a neutral experimenter.

It may be that a teacher or an examiner can behave too warmly and thus lose his effectiveness as a reinforcer. It appears that behaviors maintained by social reinforcers are responsive to a condition of relative satiation for such reinforcers. The results of several studies suggest that a source might be more effective in producing behavior change in another by expressing different orders of warmth and/or anger. The expression of initially negative feelings toward another followed by the expression of increasingly positive feelings might be more rewarding to that person than the expression of invariant warmth.

The literature relating to the specific behavioral correlates of warmth indicated that warmth can be expressed both verbally and nonverbally, and that the verbal part of a spoken message may have considerably less effect on whether a listener feels liked or disliked than certain nonverbal cues exhibited by a speaker.

The results of several studies indicated that looking at someone while they are speaking, smiling, and leaning forward when seated, portray warmth and attentiveness to that person. An individual's tone of voice and facial expression while addressing someone can indicate liking for that person. There is also some evidence that maintaining a moderately relaxed posture, standing closer to your partner and facing him while speaking or listening to him, communicate
positive feelings. Also, making positive statements about other people may contribute to one's being perceived by others as a warm person.

The literature relating the prestige of a source to his ability to modify the behavior and attitudes of others indicated that the effectiveness of a communication in producing opinion change depends to a large degree on the extent to which the communicator is held in esteem by the recipient of the communication. Similarly, the effectiveness of social reinforcement depends a great deal upon the prestige of the dispenser of that reinforcement.

Information about a source's experience, training, and competence as reported by other people seems relevant to the amount of prestige that is attributed to him. Physical appearance and manner of dress are also important determinants of the extent to which one is perceived as prestigious.

There is much evidence that a person confronted with an opinion from one who has prestige for him will have his reaction to it colored accordingly. Many studies in the area of social influence have shown that people of high prestige are more successful than people of low prestige in shaping the opinions of others. The results of several other studies indicated that the effectiveness of social approval in modifying behavior is positively related to the prestige of the person delivering the approval. Also, the individual's potency as a social
model is influenced by such characteristics as competence and intellectualness, economic and vocational status. There is some evidence that if a source is seen as an expert, the degree of warmth he exhibits has little effect upon his influence power.

For the purposes of this study, data pertaining to teacher behaviors and characteristics exhibited in the classroom and data pertaining to teacher warmth, teacher prestige, and teacher effectiveness was gathered on thirty-six teachers at Montana State University during Spring Quarter 1975. At the beginning of this quarter, thirty-six students from three sections of Educational Psychology 208 were trained by the investigator in the use of the Teacher Behaviors and Characteristics Checklist, an instrument developed by the investigator. The training consisted of two one-and-a-half hour sessions on two successive days. During the second session, the students rated the same twenty-five minute tape used in the validation of the Teacher Behaviors and Characteristics Checklist in order to assess the effectiveness of the training. Each student was then randomly assigned a teacher whose classes they attended three times during the quarter—once toward the beginning, once toward the middle, and once toward the end—for the purpose of counting and categorizing teacher behaviors according to the Teacher Behaviors and Characteristics Checklist. This instrument includes eleven categories which are divided into two classes—Measures of Teacher Prestige and Measures of Teacher Warmth.
The categories in Class I are: status and credits, dress, and teacher positive experiences. Class II is made up of the following categories: student utterances, positive evaluation of student utterances, negative evaluation of student utterances, acknowledgment of student feelings and opinions, teacher speaks positively of others, teacher smiling, and student laughter.

The raters visited the teacher's classrooms a fourth time to administer to the students the Student Perceptions Scale and also to ask the students what grade they expected to receive for the course. The Student Perceptions Scale is comprised of three instruments—the Authoritativeness Scale, a modified version of the Scale for Measurement of Counselor Traits, and the Revised Faculty Rating Form.

At the end of the quarter, the investigator contacted each of the instructors in order to obtain their self-evaluations as to the effectiveness of their teaching in the courses included in the study.

The hypotheses tested in this study were concerned with the relationships among teacher behaviors and characteristics and five independent measures of teacher performance. These five measures were teacher warmth, teacher prestige, teacher effectiveness, course value—item 33, and course value—item 85, all of which were measured by the Student Perceptions Scale. All hypotheses were tested at either the .05 or the .01 level of significance.
CONCLUSIONS

The following conclusions were developed upon an analysis of the data of this study.

1. In looking at the grades the students expected to receive for their courses and the way in which they rated their teachers on the five different scales of teacher performance of the Student Perceptions Scale, it was found that the higher the grades the students expected to receive the less they tended to view their teachers as being warm and prestigious. For the measure of teacher effectiveness, no definite relationship was found between student ratings and the grades they expected to receive. For the two measures of course value, the results did not reach significance at the .05 level.

2. As measured by the Student Perceptions Scale, teachers who rated themselves somewhere between "average" and "above average" in effectiveness were seen by their students as being more warm, more prestigious, and more effective than teachers who did not. Also, teachers who rated themselves as "above average" in effectiveness were seen by their students as being warmer than teachers who saw themselves as "average." For the two measures of course value, the results did not reach significance at the .05 level.

3. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, the higher the rank of the teacher the more he tended to be seen by his students as being
warm, prestigious, and effective—with one notable exception. Teachers with the rank of instructor were viewed with more prestige by students. For the two measures of course value, the results did not reach significance at the .05 level.

4. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, teachers having a doctor's degree were seen by the students as being warmer and more prestigious than those who did not have one. The findings relating to teacher effectiveness and the two measures of course value did not reach significance at the .05 level.

5. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, teachers who tended to dress more in ties and dress pants, sports coats and dress pants, and suits were seen by students as being more warm than both teachers who dressed more casually and teachers who wore only sports coats and suits. Teachers who tended to dress more in ties and dress pants, sports coats and dress pants, and suits were viewed with more prestige than teachers who wore only sports coats and suits, and were seen as being more effective than teachers who dressed more casually. For the two measures of course value, the results did not reach significance at the .05 level.

6. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, teachers were seen
as being warmer and more effective the less they positively evaluated student responses, the less they acknowledged student feelings, the less they smiled, and the less their students spoke in class. Also, teachers were seen as being more effective the more student laughter tended to occur in their classrooms. The findings relating to teacher prestige and the two measures of course value did not reach significance at the .05 level.

7. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, the number of times a teacher negatively evaluates his students' responses has no significant effect upon student perceptions of teacher warmth, teacher prestige, teacher effectiveness, or course value.

8. As measured by the Student Perceptions Scale and the Teacher Behaviors and Characteristics Checklist, the more a teacher related his positive experiences to his class the more he was seen by his students as being an effective teacher. Also, teachers who related the most positive experiences were seen as being the most warm and the most prestigious. Although teachers who did not talk about any positive experiences were seen as being more prestigious than those who talked about only a few. For the two measures of course value, the results did not reach significance at the .05 level.

9. In looking at the interrelationships among the five categories of teacher performance as measured by the Student Perceptions Scale...
Scale, it was found that the more a teacher was seen by his students as being warm the more he was also seen as being prestigious and effective, and the less his course was valued by his students. It was also found that the more a teacher was seen as being prestigious the less his course was valued; and, finally, students tended to answer the two questions used to measure the extent to which they valued the courses in a consistent way. The findings indicated that no significant relationship exists between teacher prestige and teacher effectiveness or between teacher effectiveness and course value.

RECOMMENDATIONS

Based upon the findings and conclusions of this study, several recommendations emerge as appropriate for further investigation.

1. This investigation, as it related to teacher performance and student perceptions of teachers, should be replicated on other college and university campuses, as well as in elementary, secondary, and vocational school settings. It is important to know whether the findings at Montana State University can be applied to other school settings.

2. This investigation should be conducted again and modified to also include an assessment of student perceptions of teacher performance sometime after the course has ended.
3. It is recommended that more efforts be made to identify what a teacher does in a classroom in behavioral terms and investigate the effect of what he does upon the teaching-learning process. The results from such studies would be helpful in the preparation and evaluation of teachers.

4. There should be continued research regarding student perceptions and student learning. This, too, would provide information that could aid in the development of instruments for assessing teacher effectiveness.

5. It is recommended that teachers be aware of the patterns of interpersonal communication and the personal characteristics that they bring to the classroom and their possible effect upon student perceptions and the teaching-learning process.
APPENDIX A

STUDENT PERCEPTIONS SCALE

Instructions: Please indicate your response to the following items on the IBM answer sheet provided. Interpret the possible responses as follows: A - Strongly Agree, B - Agreed, C - Undecided, D - Disagree, E - Strongly Disagree.

Your responses will be automatically punched into IBM cards. This information will be used for research purposes only, and your individual responses will be kept entirely confidential.

I believe that the instructor:

1. Exhibited a warm positive feeling toward the students.
2. Accepted us without establishing any conditions.
3. Cared for us as individuals.
4. Was willing to share equally our joys and aspirations or our depressions and failures.
5. Valued us as persons without judging us by an evaluation of our behavior.
6. Held us in high esteem for ourselves regardless of our behavior.
7. Actively offered advice.
8. Attempted to determine the meaning and value of our thoughts and behavior as we saw them.
9. Indicated that what we do or do not do is important to him.
10. Saw himself as responsible to us.
11. Expressed what he really felt and meant.
12. Remained aloof.
13. Indicated that there was a considerable discrepancy between what he may say and what he believes.
14. Was himself rather than presenting a professional front.
15. Gave responses that were sincere.
16. Indicated an expression of his real feelings rather than being defensive.
17. Was himself in all of his responses whether these responses were personally meaningful or trite.
18. Attempted to feel the same emotions that we felt.
19. Made remarks that fit in just right with our mood.
20. Indicated a sensitive understanding of our most obvious feelings.
21. Was continuously aware of any emotional shift we made.
22. Listened carefully and intently to what we said.
23. Responded to our full range of feelings and communicated an understanding of our very deepest feelings.
24. Seemed to be reflecting his own feelings and experiences rather
than those of students.
25. Displayed a concern for our deeper, more hidden feelings.
26. Recognized our present feelings.
27. Readily recognized mistakes he may have made in understanding our
feelings and was willing to change his perception of us.
28. Communicated back to us an understanding of our every deepest
feeling.
29. Seemed to ignore our true feelings.
30. Appeared to understand exactly what we meant.
31. Told us what he should do.
32. Was capable of diagnosing our problem.
33. I believe that the class sessions helped us:
   1. Not at all
   2. Only slightly
   3. Considerably
   4. A great deal
34. I respect this teacher's opinion on the topic.
35. This teacher is not of very high intelligence.
36. This teacher is a reliable source of information on the topic.
37. I have confidence in this teacher.
38. This teacher lacks information on the subject.
39. This teacher has high status in our society.
40. I would consider this teacher to be an expert on the topic.
41. This teacher's opinion on the topic is of little value.
42. I believe that this teacher is quite intelligent.
43. The teacher is an unreliable source of information on the topic.
44. I have little confidence in this teacher.
45. The teacher is well-informed on this subject.
46. The teacher has low status in our society.
47. I would not consider this teacher to be an expert on this topic.
48. This teacher is an authority on the topic.
49. This teacher has had very little experience with this subject.
50. This teacher has considerable knowledge of the factors involved
   with this subject.
51. Few people are as qualified to speak on this topic as this teacher.
52. This teacher is not an authority on the topic.
53. This teacher has very little knowledge of the factors involved
   with the subject.
54. This teacher has had substantial experience with this subject.
55. Many people are much more qualified to speak on this topic than
   this teacher.
56. The students felt free to express their opinions in class.
57. The instructor told students when they had done a particularly
good job.
58. The instructor assigned very difficult reading.
59. The instructor had everything going according to schedule.
60. The instructor planned the activities of each class period in
detail.
62. Students argued with one another or with the instructor, not
necessarily with hostility.
63. The instructor urged students to greater effort.
64. Students were given a course outline or syllabus to help organize
their learning.
65. Assigned material was covered in lectures.
66. The instructor gave constructive criticism of poor work.
67. Hand-outs, bibliographies, etc. were used.
68. The instructor sensed when students needed help.
69. Material was presented in such a manner as to dull student
thinking.
70. Course objectives were vague or uncertain.
71. Original thinking was demanded of students.
72. The grading system was clearly explained.
73. A large amount of preparation was required outside of class.
74. The instructor helped students more than most teachers do.
75. It was hard to get credit when credit was due.
76. Adequate illustrations or examples were used to clarify important
points.
77. Students were not told what would be covered on examinations.
78. The amount of work required was appropriate for the credit
received.
79. The instructor was impatient with the slower students.
80. The influence of the instructor on the amount students learned
was insignificant.
81. Students understood the subject at the end of the course.
82. Students had difficulty arranging conferences with the instructor.
85. How would you rate the overall value of this course:
   1. Poor
   2. Fair
   3. Good
   4. Very good
   5. Superior
TEACHER BEHAVIORS AND CHARACTERISTICS CHECKLIST

Instructor's Name __________________ Course __________________________

Dress: Suit ______ Sports coat with dress pants ______ Shirt and tie and dress pants ______ Dress pants with shirt or sweater; no tie ______ Other ______

1. Student Utterances
   Student makes a statement
   Student replies to teacher's question
   A verbal exchange including two or more student statements is counted as one utterance

2. Positive Evaluation
   Teacher nods during or after student utterance
   Teacher smiles during or after student utterance
   Teacher says "good," "yeah," "mmm-hmm," "okay," etc.
   Teacher says "That's a good point" or "I agree"
   Teacher refers to student by name
   Teacher exhibits a "positive evaluative" behavior at least once during or after a verbal exchange
   Teacher paraphrases student statement or reflects student feelings (category #5 behaviors)

3. Negative Evaluation
   Teacher shakes head during or after student utterance
   Teacher says "no," "wrong," "uh-uh," or "That's wrong"
   Teacher sighs or takes a deep breath and doesn't smile
   Teacher closes eyes or purses lips; doesn't smile
   (If any of these behaviors are followed by "Positive Evaluation" behaviors, i.e., smiling, mark category #2 and not this category.)

4. Student Feelings and Opinions
   Teacher says "You feel . . . ."
   Teacher says "What are your reactions?"
   Teacher says "Do you have any comments?"
5. Speaks Positively of Others
   Teacher says he likes someone
   Teacher says someone did a good job
   Teacher says someone looked good
   Teacher says someone is smart, kind, funny, etc.

6. Speaks Negatively of Others
   Teacher says he dislikes someone
   Teacher says someone did a bad job
   Teacher says someone looked bad
   Teacher says someone is dumb, unkind, etc.

7. Relates Positive Experiences
   Teacher talks about jobs or positions he's held
   Teacher talks about places he's visited
   Teacher talks about personal achievements
   Teacher talks about an honor he's received

8. Instructor Smiles

9. Student Laughter
Thank you for participating in my dissertation study Spring Quarter, 1975. If you recall, observers sat in on three of your class sessions, and your students completed a teacher evaluation questionnaire.

The last piece of information I need to complete the study is your answer to the following question. Your response will be held in confidence. A self-addressed envelope is enclosed for your convenience.

"Please rate your effectiveness as a teacher in the class, ________ ."


Please check here if you are interested in receiving the results of this study.

Sincerely,

Doug Smith


Browning, G. J. 1965. An analysis of the effects of therapist prestige and levels of therapist prestige and levels of interpretation on client response in the initial phase of psychotherapy. Dissertation Abstracts, 4803-4804.


Smith, Douglas N

Relationships among selected teacher behaviors and characteristics and student perceptions of teacher warmth, prestige ...