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THE USE OF VERBAL STATEMENTS BY COLLEGE-LEVEL COMMUNICATION INSTRUCTORS DURING CLASSROOM INTERACTIONS WITH STUDENTS RATED ACCEPTABLE OR UNACCEPTABLE CLASSROOM COMMUNICATORS

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COMMUNICATION INSTRUCTORS DURING CLASSROOM
INTERACTIONS WITH STUDENTS RATED
ACCEPTABLE OR UNACCEPTABLE
CLASSROOM COMMUNICATORS

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CHAPTER I

INTRODUCTION

The "back to basics" movement in education has stimulated
the interest of speech communication scholars in the development of
oral communication competencies of students. Ron Allen and Ken Brown
(1976), whose research represents the first major attempt to clarify
this area, describe communication competence as one's knowledge of
communication strategies, one's ability to select appropriate strategies,
one's ability to use the strategies effectively, and one's ability to
assess the effectiveness of the strategies. Teachers may be concerned
about developing these communication competencies in their students.
However, they first must make judgments about the competencies the stu-
dents already have. While these judgments should be objective, teachers
probably assess overall communication competence according to the stu-
dent's use of acceptable communication in the classroom. Moreover,
teachers may find themselves using one set of communication behaviors
with students they perceive as appropriate communicators and another

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set of communication behaviors with students they perceive as inappro-
priate communicators. The teacher's communication behavior may rein-
force or discourage the student's communication behavior (Phillips,
Butt, & Metzer, 1974). This idea led to the major question of this
research investigation: Are the verbal messages that teachers use with
students they perceive as acceptable communicators in the classroom dif-
ferent from the verbal messages teachers use with students they perceive
as unacceptable communicators in the classroom?

The interpersonal communication literature indicates that a
person's perceptions of another significantly affect communication be-
tween them regardless of the accuracy of one's perceptions (Berger, 1977;
and Wilmot, 1979). The literature on communication in relation to person
perception in the classroom further shows that teachers do communicate
differentially with their students depending upon their perceptions of
their students (Brophy & Good, 1969; 1974; and Downey, 1977). For
example, students for whom teachers have high expectations, generally
receive significantly more direct questions (Cornbleth & Button, 1973;
and Good, 1970). In addition, teachers tend to initiate interaction
with students they perceive as high achievers more frequently than
with students they perceive as low achievers. While these findings
represent the general trends in research in this area, they have not
been consistent across research experiments. Explanations for the
inconsistencies may lie in the methodologies used to answer research
questions.

First, the majority of studies have used rank order techniques
to determine teachers' perceptions of their students. Researchers

have asked teachers to rank order their students from high to low or simply to group students into high, medium or low categories (Brophy & Good, 1974; Cornbleth & Button, 1973; and Elashoff & Snow, 1971). In one instance, a researcher employed a more creative technique for categorizing students. Silberman (1969) asked teachers to group students based on whether they had feelings of attachment, concern, indifference, or rejection. Overall, there has been no common base from which teachers' judgments have been made. Researchers could not confidently say that all teachers considered the same factors when ranking or categorizing their students.

To determine teachers' perceptions of their students, this researcher proposes the use of an instrument designed to measure teachers' perceptions of their students classroom communication behavior. This instrument, the Student Classroom Communication Behavior Scale, was developed by this researcher. The instrument was designed to measure the specific communication behaviors of interest in this study. One reason for using this technique was that its usefulness and appropriateness, i.e., validity and reliability, could be determined. The researcher would be able to say more confidently that teachers used the same criteria for rating students, because teachers would be restricted to making their judgements to the areas on the instrument. Also, this technique allows the researcher to easily assign students to high or low groups.

Second, most of the research on teachers' communication in relation to their perceptions of students has been done in elementary

and secondary school classroom settings. Cornbleth and Button (1973) critically evaluated some studies conducted in this area and found one set of findings for the elementary level and another set of findings for the secondary level. This led Cornbleth to hypothesize that grade level might have an impact on teachers' verbal behaviors. Informal discussions with college instructors indicate that they see the college classroom as different from classroom settings at other levels, although they are not able to identify the differences. Given the assumptions of Cornbleth and Button about teachers' verbal behaviors with students in different grade levels, one wonders in what ways college teachers communicate differently than elementary school or high school teachers.

Third, the majority of the studies about teachers' perceptions of students have examined student achievement, intelligence, social class or race. Smythe and Powers (1978) argue that these student-related variables are static and not dynamic variables. They point out that perceiving is a dynamic process that is based on interactions between people. Therefore, researchers should be examining behaviors that contribute to perceptions, such as communication behaviors. The fact that some research studies show that when teachers rate their students, their judgments are based on the students' communication styles, suggests that these behaviors should be examined in research (Brophy & Good, 1974).

To conclude, this study will contribute to our knowledge of communication in the classroom in several ways. It will investigate

teachers' messages in relation to their perceptions of students' classroom communication, which is an area not yet considered in research. It will also examine these variables in a different setting, the college communication classroom. Therefore, this study will provide additional information about the way teachers communicate in relation to their perceptions of their students.

In this investigation, the following specific questions are addressed:

1. Are the verbal statements teachers use with students rated high on the Student Classroom Communication Behavior Scale different from the verbal statements they use with students rated low on the Students Classroom Communication Behavior Scale?

2. Are the number of verbal statements teachers use in their messages with students rated high on the Students Classroom Communication Behavior Scale different from the number of verbal statements teachers use in their messages with students rated low on the Student Classroom Communication Behavior Scale?

3. How are the interactions between teachers and students rated high on the Student Classroom Communication Behavior Scale different from the interactions between teachers and students rated low on the Student Classroom Communication Behavior Scale?

4. How do teachers organize the verbal statements in their messages when they communicate with students rated high on the Student Classroom Communication Behavior Scale and when they communicate with students rated low on the Student Classroom Communication Behavior Scale?

Defintions of Terms

The definitions of the major terms used in this study are important to the understanding of this research.

Student classroom communication behavior. Student classroom communication behavior is operationally defined as a particular score for a student on the Student Classroom Communication Behavior Scale (SCCBS). The score is based on the teacher's rating of the student (see Appendix A).

Teacher-student interaction. Teacher-student interaction is operationally defined as an exchange of verbal messages between a teacher and a student. The interactions of interest in this study may take any of the following forms:

1. teacher initiated message, student responding message;

2. teacher initiated message, student responding message, teacher responding message;

3. teacher initiated message, student responding message, teacher responding message, student responding message;

4. student initiated message, teacher responding message;

5. student initiated message, teacher responding message, student responding message; and

6. student initiated message, teacher responding message, student responding message, teacher responding message.

Teacher message. Teacher message is operationally defined as the group of verbal statements teachers make when it is his or her turn to talk during a teacher-student interaction. A teacher message

may have only one verbal statement or it may have as many as seven verbal statements.

Teacher statement. Teacher statement is operationally defined as the verbal sentence a teacher uses when talking with students. The meanings of the sentences are determined by one of the ten categories of the Teacher Behavior Observation System (see Appendix B).

Review of Related Literature

An examination of teachers use of verbal messages in relation to their perceptions of their students classroom communication requires discussion of research previously conducted in related areas. This chapter will review literature in four topic areas. First, the literature on person perception in interpersonal communication will be examined to provide a theoretical framework for this research investigation. The discussion will show how a person's perception of another influences the communication between them. Second, research on person perception in the classroom will be explored, because the topic is a major concern of this dissertation. The third section will report the research conducted on teachers' verbal messages in relation to their perceptions of specific student related variables. The variables include socio-economic background, race, sex, achievement and communication styles. Last, the literature on student classroom communication behavior will be examined as a variable that should be considered in research on teacher communication in relation to teacher perceptions. The information from the literature review also served as the basis for the Student Classroom Communication Behavior Scale that was used in

this investigation.

Person Perception

Barnlund (1968, p. 10) defines interpersonal communication as "relatively informal social situations in which persons in face-to-face encounters sustain focused interaction through the reciprocal exchange of verbal and nonverbal cues." Keltner (1970, p. 9) defines it as the "process of symbolic communication interaction between persons." Giffin and Patton (1974, p. 12) provide a simpler definition; they see interpersonal communication as face-to-face interaction between people where messages are exchanged and people simultaneously adjust their behavior. Regardless of the specific definition, interpersonal communication typically involves the use of symbolic behavior to exchange messages between people in face-to-face situations. Although interpersonal communication embraces several topic areas, this review section will focus on person perception as a crucial ingredient and determinant of the interpersonal communication process (see Littlejohn, 1978).

The way people perceive each other has some impact on the way they communicate with each other. Several scholars have discussed the reciprocal relationship between perception and communication that seems to exist. Taguiri (1969, p. 395) defines person perception as the "processes by which man comes to know and to think about other persons, their characteristics, qualities and inner states." Taguiri's research on person perception has provided a framework for understanding interpersonal communication. For him, person perception is a dynamic, ever changing process that involves a perceiver, the object of per-

ception, and a situation. Individuals simultaneously perceive each other and adjust their assumptions and behaviors toward others based on these perceptions.

Person perception has been examined most extensively under the umbrella of attribution theory. Attribution refers to an individual's attempt to seek meaning in human behavior (Shaver, 1975). Fritz Heider (1958), considered to be the father of attribution theory, argues that people constantly are acquiring information about each other and trying to give meaning to that behavior. He further suggests that certain patterns in an individual's behavior will contribute to the attributions made about that person's behavior. Littlejohn (1978) reviewing the research on attribution states that there are three basic assumptions about attribution theory. First, people try to identify the causes of behavior. Second, people systematically assign causes to behavior. Third, the attributions made influence people's attitudes and behaviors. Therefore, in interpersonal communication we are interpreting others constantly and forming impressions based on whatever information is available.

In the continuing process of interpreting others, individuals rely heavily upon their ability to infer meaning from behavior. Laing, Phillipson and Lee (1966) state that although people can see and experience each other, one individual never is really able to have the exact same experience as another. One can only infer the experience. They also point out that humans have two levels of perception. One can perceive another directly, which is referred to as perception. One also

can perceive the other's experiences through inferential processes, which is referred to as meta-perception. This meta-perception or how one person thinks another perceives him or her is what influences communication between people. Therefore, we can assume that regardless of accuracy, communication between people may be the result of their perceptions and interpretations of each other (Berger, 1977; Littlejohn, 1978; and Wilmot, 1979).

Person Perception in Classrooms

The principles of person perception are applicable to the classroom environment because it also is an interpersonal communication context. However, other factors contribute to making this interpersonal context different from other interpersonal contexts. Generally, the classroom is considered a place where learning occurs. Students engage in person perception as they try to understand the expectations of their teachers. For teachers, perception of students sometimes is the basis for evaluating student learning. At the elementary and secondary levels, evaluating non-academic student behavior is an integral part of evaluation as evidence by the citizenship grade category on report cards. Judgments about a student's citizenship usually are based on the student's ability or willingness to conform to the social norms and expectations of the educational setting (Phillips, et al., 1974).

Research concerning teachers' perceptions of students in the classroom is abundant in the literature. The majority of the research comes under the heading of teacher expectancy. First, researchers investigated whether or not teacher expectations are related to various

student variables, i.e., social class, race, sex, and achievement.
Second, researchers have investigated whether or not teacher be-
havior is related to their expectations of students. Third, they have
investigated whether or not teachers communicate their expectations
to their students. Fourth, they have investigated whether or not
teachers' expectations of their students become self-fulfilling pro-
phecies for the students (Brophy & Good, 1974). A significant inves-
tigation conducted by Rosenthal and Jacobson (1968) revealed the role
of teacher perceptions in the classroom as well as the impact of teacher
perceptions on students.

Rosenthal and Jacobson investigated induced teacher expectancy
for student achievement in elementary grades to see if expectations
would act as self-fulfilling prophecies. In this experiment, the
subjects were elementary school teachers at every grade level and their
students. The students were given a test of intellectual ability early
in the school year. However, teachers were told that the test was de-
signed to determine which students would be "intellectual bloomers".
Students in each teacher's class were randomly selected as "intellectual
bloomers". Teachers were told that these students were late bloomers
and would make remarkable intellectual growth during the upcoming school
year. Teachers were to teach their classes as usual. At the end of
the school year, the students were given the intellectual ability test
again to compare gains in the late bloomers with their fellow classmates.
The results showed that the late bloomers had surpassed their classmates
on the test, especially in the first and second grades. The findings

from this study gained national recognition and led many people to believe that somehow, teachers' expectations had magical power. The findings from this study then became the basis for a theoretical model in this area.

The Rosenthal and Jacobson study was not without its flaws. Some argue that the findings were overly exaggerated and not easily interpretable (Brophy & Good, 1974; and Elashoff & Snow, 1971). Attempts to replicate the study, even by Rosenthal and Jacobson, generally have not been successful. As a result, numerous criticisms of the research have been presented in the literature (Brophy & Good, 1974; Cherry & Berman, 1978; and Elashoff & Snow, 1971). First, the type of expectation used in this study has been under suspicion. Rosenthal and Jacobson "induced" teacher expectations instead of identifying the natural expectations teachers had for their students. Second, the researchers did not observe the teacher-student interactions in the classroom. Their findings were based only on pre-test and post-test results. They argued that teachers communicated their expectations to students and students behaved accordingly. However, there was no way of identifying the processes involved in communicating the expectations. Additionally, attempts to replicate this study might have been unsuccessful because later researchers altered aspects of the design. For example, the period of time during which expectations were examined varied (Fielder, Cohen & Feeney, 1971); the hypotheses have been tested at the secondary level instead of at the elementary level (Goldsmith & Fry, 1970); and some researchers have used more that one treatment group

(Fleming & Antonnen, 1971).

The weaknesses in the Rosenthal and Jacobson study along with later researchers' inability to replicate the findings led Brophy and Good (1974) to believe that the original expectancy model was not valid. They offered an alternative model suggesting that:

1. Teachers form differential expectations for student performance;

2. Teachers then begin to treat students differently according to their differential expectations;

3. Students respond differently because they are related differently;

4. A student will exhibit behavior that compliments and reinforces a teacher's expectations for him or her;

5. For some students, academic performance may improve, while for others it will be depressed, the change being in the direction of teacher expectation;

6. The effects of the expectations will become evident at the end of the year giving support for the self-fulfilling prophecy (Brophy & Good, 1974, pp. 365-366).

Later research in the area of teacher expectations for student-related variables tended to use this theoretical model for explaining research findings. In the next section, some of the research related to teacher behaviors and their expectations will be discussed.

Teachers' Verbal Messages in Relation to their Perceptions of Students

Bellack, Kliebard, Hyman and Smith (1966) published the findings from a major investigation on classrooms in New York City public schools. The purpose of the study was to examine the teaching process by analyzing

language behavior of teachers and students. They suggested that tea-
cher behavior was reciprocally related to the student's behavior, and
that all participants in classrooms contribute to the meanings that
are shared in this setting. The researchers examined teacher language
in fifteen different high school classrooms where the subject matter
was the same. Data were collected by using audiotape recorders. Their
data revealed that teachers' verbal actions could be classified into
four categories. The categories of behaviors are the primary ones
that later researchers used to identify the verbal messages teachers
communicate. From these four general categories, more specific cate-
gories of verbal behavior were generated, some of which will be dis-
cussed in this section. One category, structuring behaviors, establishes
the context for any behavior. For example, when the teacher begins
the lesson, he or she may preview the lesson or indicate the lesson ob-
jectives. The second category, soliciting behaviors, is designed to
encourage and elicit response. Questions are examples of soliciting
behavior. The third category, responding behaviors, is reciprocally
related to soliciting behaviors. It fulfills the expectation of solic-
iting behavior. A teacher's answer to a student's question is an
example of responding behavior.

The discussion on teacher verbal behavior is presented be-
cause these are the types of behaviors that have been examined in re-
lation to teachers' perceptions. In the following subsections, teachers'
verbal messages in relation to students' socioeconomic background, race,
sex, achievement, and communication style will be discussed.

Socio-economic Background.   One of the earliest studies in this area was conducted by Davis and Dollard (1940). They conducted extensive case study investigations of eight black children in Mississippi and Lousiana who represented different social classes in black society. The researchers collected personality data on the children through interviews. Through discussions with teachers and observations of children in class, they found that teachers gave praise to students from higher socio-economic backgrounds, and criticism and punishment to students from lower socio-economic backgrounds. In a later investigation, Rist (1970) examined communication patterns between teachers and students in kindergarten and second grade ghetto schools. Students were divided into three ability groups. Despite the fact that teachers were from low socio-economic backgrounds, teachers interacted more frequently and more positively with students in the high ability group.

Amato (1975) also investigated teacher perceptions of socio - economic background. She had 30 female teachers complete semantic differential scales and questionnaires with possible verbal responses for a 12 year old boy posing as a fourth grader. For each of the four groups of teachers, the researchers manipulated the child's social class and I.Q. The findings were conflicting. In one experiment, she found that in one group where teachers were told the child was from a lower socio-economic background, the child was given a great number of positive affect statements. However, in another experiment, she found in a group where teachers were told the child was from a higher socio-economic background, they also gave the child a significantly greater number of positive affect statements. Her hypotheses

were not supported.

Race. Rubovits and Maehr (1973) examined teacher messages to
black and white junior high students. In a microteaching situation,
white student teachers taught a small group with two black and two white
students. They reported that blacks were given less attention, were
asked for fewer responses, encouraged less, ignored more, criticized
more and praised less than white students. The findings from this
study were alarming because it gave some indication of the prejudicial
behaviors that some teachers might carry into the classroom.

In an earlier study, however, Datta, Schaefer, and Davis (1963)
looked at perceptions of race with 100 black and 100 white seventh
graders in a surburban school environment. They were primarily interested
in teachers' perceptions of black students. One teacher for each stu-
dent was contacted by mail and asked to rate the student on his or her
social adjustment in class. They found that for black students in
black classroom settings, teachers messages varied according to the I.Q.
of the students.

In a highly controlled experiment, Coates (1972) designed a
study so that teachers thought a particular child was making certain
types of responses to demonstrate that the child was learning. Subjects
could see the children while working with them, but could not see nor
hear the children's responses. Following the instructional exercise,
teachers were asked to give children feedback ranging from praise to
criticism and to complete an adjective checklist on the students.
He reported that there were no significant differences between the types

of feedback given to white and black students by the female subjects. However, the male teachers gave more negative feedback to black children and rated them significantly more negatively than the white children.

Sex. Three research studies examined this variable. Jackson and Lahaderne (1967) focused on teachers' behaviors toward fourth and sixth grade students. Researchers observed the classes of two male and two female teachers for two months. They found that boys received more teacher disapproval and criticism than girls. Moreover, Waetjen (1962) found that when giving criticism to boys, teachers used a harsher and angrier tone. However, when criticizing girls, teachers used a conversation tone. Brophy and Good (1974) are quick to point out that these findings do not necessarily mean that teachers unfairly criticize male students. The way males and females are socialized seems to affect their classroom behavior. Also, at the elementary school level, emphasis is placed on verbal and intellectual activities, which generally are oriented towards girls, and not on physical activities, which generally are oriented towards boys. Additionally, the fact that the majority of elementary school teachers are female may explain why female teachers treat girls differently. They may be more familiar with female experiences in that environment. The orientation of schools is appropriate for girls and simply different from the orientation of boys. Boys more frequently appear to break classroom rules.

In contrast to the above findings, Duncan and Biddle (1974) reviewed other studies on teachers' perceptions of students and found

that boys received more teacher praise than girls. Even with similarities in methodologies, the findings were contradictory.

Achievement. The majority of studies on teacher behavior have been done in relation to expectations about student achievement. Numerous studies have been published by Brophy, Good and their associates. Their research has been conducted mostly in elementary school classrooms. They developed their own classroom observation instrument, the Brophy-Good Interaction Observation System (Brophy & Good, 1970), primarily because other instruments could not be used for observing and recording teacher-pupil dyadic interactions. For the most part, the research findings in this area have been consistent. Good (1970) reported that first grade teachers gave more response opportunities and more positive feedback to high achieving students than to low achieving students. Kranz, Weber, and Fishell (1970) who worked with 20 elementary school teachers found also that there were significantly more interactions with students ranked high. Cornbleth and Button (1973) later investigated perceptions of achievement among high school students. They asked teachers to rank their students from high to low. They discovered that teachers had a significantly higher number of contacts, used more direct teacher questions, and used longer responses with high achieving students. Blakley, Jahns, and Schroeder (1972) examined college teachers' behaviors in relation to their perceptions among adult learners in an adult education course. Based on the data derived from a modified version of Flanders Interaction Analysis System, they found that teachers used significantly more warming statements

and significantly fewer cooling statements with high performing students.

While the majority of the studies reviewed on achievement were reported in the literature during the early 1970s, Woolfolk's (1978) recent literature review shows that statements such as "good" and thank you" were positively related to students perceived as high achievers.

Student Communication Style. The few studies that have investigated the student's classroom communication have focused primarily on language use in classrooms. Williams, Whitehead, and Miller (1972) studied the language use of black, Hispanic and white fifth and sixth graders. All children were interviewed by a young white female in a room where the interaction was videotaped. The interviewer used a semi-formal style to elicit continuous speech from the children. For example, the interviewer asked the children about their favorite television shows. The videotape was presented to small groups of black and white teachers and they were asked to complete semantic differential scales on the children. They were also asked to assign the child to a class level. Based on the findings from the semantic differential and the ability group placements, the researchers inferred that the children who used nonstandard speech probably would receive more negative feedback, regardless of the race of the teacher.

More recently, Cherry and Berman (1978) examined teachers' perceptions of students' communication competence in elementary school classrooms. They defined communication competence as appropriate language use in the classroom. They described a competent student as one who knows when, where, and with whom to speak and how to interpret

implicit classroom rules. Teachers were asked to rank their students according to their communication competence in the classroom. To identify teachers' language behaviors, they audiotaped and videotaped one lesson from each class. Teacher messages were categorized according to the categories on a teacher behavior observation system developed by Cherry. They reported a significant number of elicitations for information for students rated as competent communicators. However, only three of the seven teachers provided these students with significantly more positive feedback. The mixed findings lead them to believe that the Brophy and Good model and the Rosenthal and Jacobson model were weak. However, the lack of sufficient data to test the hypotheses might also be a possible explanation for not getting the expected findings.

Several studies were cited in the communication literature concerning teacher expectations for students who are communication apprehensives (Friemuth, 1976; McCroskey & Andersen, 1976; McCroskey & Daly, 1976; and Smythe & Powers, 1978). However, they have not focused on how teachers behave in relation to their expectations of students. Instead, they have inferred that since teachers have expectations for apprehensive students that are different from their expectations for non-apprehensive students, then teachers probably have different sets of behaviors.

Students' Classroom Communication Behavior

In the previous section, the literature on teachers' perceptions of students' race, social class, achievement, sex, and communication style were presented. Although the research on teachers' perceptions

of students' communication style focused mostly on the student's appropriate use of language or the student's apprehension about communicating. the research studies have not examined the way teachers communicate with students who exhibit appropriate classroom communication, i.e., volunteering to respond in class, listening attentively, interacting freely with classmates, and not challenging the teacher. These communication behaviors will be explored in this section as possible variables that should be examined when investigating teacher communication in relation to their perceptions of their students. Specifically, the discussion will be devoted to a description of the communication behaviors teachers expect their students to exhibit in class.

In general, teachers consider oral performance in the classroom an important indication of a student's overall abilitites. A student who is able to express himself or herself clearly is assumed to be bright and intelligent. Teachers assume that "we all learn how to speak at our mother's knee" and therefore should be willing and able to be articulate in the classroom (Phillips, et al., 1974, p. 25). Unfortunately, this assumption is not necessarily valid. Consequently, students may be punished because of this misconception. This misconception may explain why teachers at any level expect certain oral communication skills of their students.

Several researchers have described the oral communication behaviors that might be present in the classroom. Phillips, et al., provide a list of eight behaviors that students should have in the classroom:

1. express ideas
2. ask and answer questions
3. make reports
4. participate in oral group activities
5. express points of view
6. talk with others
7. make requests
8. ask for help

Other attempts also have been made to describe the oral communication skills that students should have, and these skills also are necessary for the classroom. Allen & Brown (1974, pp. 251-252), whose research efforts represent the first major attempt to identify communication competencies for children, present five areas of behaviors that children should have.

1. Controlling. These are acts in which the participants' dominant purpose is to control behavior. These acts include behaviors such as commanding, suggesting, permitting, threatening, warning, prohibiting, contracting, refusing, bargaining, rejecting, acknowledging, justifying, persuading, and arguing.

2. Feeling. These are acts in which the participants' dominant purpose is to express feelings and attitudes as an affective response. These acts tend to be spontaneous and are manifested because of the satisfactions they carry for the participants. Behaviors such as exclaiming, expressing a state or an attitude, taunting, commiserating, tale-telling, and blaming are included here.

3. Informing. These are acts in which the participants' purpose is to offer to seek information. These acts include behaviors such as stating pieces of information, questioning, answering, justifying, naming, pointing out an object, demonstrating, explaining, and acknowledging.

4. Ritualizing. These are acts that serve primarily to maintain social relationships and to facilitate social interaction. Such acts

> include greeting, taking leave, partic-
> ipating in verbal games (pat-a-cake), re-
> citing, taking turns in conversations, par-
> ticipaing in culturally appropriate speech
> modes (e.g., shucking, jiving, playing
> the dozens), and demonstrating culturally
> appropriate amenities.

5. <u>Imagining</u>. These are acts that cast the
   participants in imaginary situations. These
   acts include creative behaviors such as
   role-playing, fantasizing, speculating,
   dramatizing, theorizing, and storytelling.

Wood (1977) has further developed these competencies identified by Allen

and Brown. She has described specific objectives and activities for

K-12 that might help teachers develop these competencies in their students.

Another type of communication behavior typically found in the

classroom is communication apprehension. The extensive research con-

ducted by McCroskey and his colleagues points to numerous problems for

those students who are anxious about communicating with others. In

general, communication apprehension may prevent a student from success-

fully completing an assignment, attending class regularly, and may

affect his or her grade point average (McCroskey, 1977). Moreover,

when people who perceive themselves to be communication apprehensives

are asked to describe themselve, they generally state seven problem

areas (Phillips, 1977, p. 37):

1. inability to open conversations with
   strangers or to make small talk;

2. inability to extend conversations or to
   initiate friendships;

3. inability to follow the thread of dis-
   cussion or to make pertinent remarks in
   discussions;

4. inability to answer questions asked in
a normal classroom or job situation;

5. incompetence at answering questions that
arise on the job or in the classroom, not
through lack of knowledge, but an in-
ability to phrase or time answers;

6. inability to deliver a complete message
even though it is planned and organized;
and

7. general ineptitude in communication sit-
uations characterized by avoidance of
participation.

These behaviors that Phillips has described are the kinds of behaviors

that teachers would consider unacceptable in the classroom (Phillips,

et al., 1974).

Friedrich, Galvin and Book (1976) provide a detailed descrip-

tion of classroom communication behaviors, suggesting that the behaviors

be present in classrooms at any level. They divide the student behaviors

into three categories: self-oriented; other-oriented; and teacher-

oriented. Self-oriented students are those whose communication behaviors

are not dependent upon continued interaction with others. They cite

four examples of this type of student. First, the silent student is one

who verbally or physically withdraws from the rest of the class, and

the teacher may not know why the student does not participate in class

discussions. The second example, the marble taker, is one who also

withdraws, however only after his or her ideas have been challenged or

ignored. The student may take a sour grapes attitude. The third ex-

ample, the discouraged worker, is one who is capable and intelligent,

but is overly critical of his or her own work. This student becomes

depressed easily and may also withdraw. The fourth example, the

independent worker, is self-directed, self-motivated and participates
freely in class; however, his or her communication is designed to con-
firm his or her notions about the self.

The second category includes other-oriented student behaviors.
Here the authors have identified five examples. The first is the
dictator who is domineering, boisterous and seldom listens to others.
The second example, the facilitator, is cooperative, works well with
others, participates freely and tries to maintain harmonious relations
with others. The third example, the attention seeker, is usually
verbally and nonverbally active, a prankster, light-hearted, and some-
times impedes classprogress. The fourth, the prize fighter, is dis-
ruptive, argumentative and generally exhibits negative disruptive be-
haviors. The fifth, the point picker, nitpicks and takes issue with
anything and anyone. His or her behaviors may impede group progess.
The last example, the hero, is also considered disruptive. This
student is verbally aggressive and may question the teacher's authority.

The third category is referred to as teacher-oriented
student behavior. A student whose behavior is teacher-oriented generally
attempts to seek teacher approval or attack the teacher's authority.
Regardless of the behavior, his or her prime motivation is the conscious
knowledge of the teacher's authority. The authors identify three ex-
amples of this behavior. The first, the sniper, is a disruptive stu-
dent who frequently challenges the teacher's authority verbally or non-
verbally. The student may make derogatory comments to the teacher.
Generally, the student creates a hostile environment for the teacher.

The second example, the anxious dependent, student is concerned about how the teacher perceives him or her. This student rarely initiates interaction and tends to give answers more than ask questions. When this student talks, it usually is with great hesitation and in a questioning manner. He or she lacks self-confidence and relies on the teacher's opinion of his or her self-worth. The last example includes the compliant student and the apple polisher. The compliant student usually does not question the teacher's authority, is positive, and does what he or she thinks the teacher expects. The apple polisher overtly supports the teacher both verbally and nonverbally. The authors suggest that the teacher may look to these students for signs of support and acceptance of ideas. These students wish to gain approval from the authority figure in the classroom.

In an extensive investigation of the college classroom, Mann, Arnold, Binder, Cytrybaum, Newman, Ringwald, Ringwald, and Rosenwein (1970) examined teacher-student interaction in an attempt to explain the changing college classroom. They used different techniques to uncover this information. Students from four different classrooms were observed, interviewed extensively and asked to complete six different instruments. Information about their SAT scores also was acquired. All of these data were submitted to cluster analysis which yielded seven categories of student behavior. These clusters of behavior were described by Friedrich, et al. They include the discouraged worker, the independent worker, the attention seeker, the hero, the sniper, the anxious dependent and the compliant student. However, the most important finding from the investigation was the identification

of the behaviors deemed most appropriate for the college classroom.
These are the behaviors that are most important to this investigation.
The appropriate behaviors they identified were typical of the compliant
student. Mann, et al. describe the student as passive, asks questions
freely, volunteers information to the teacher, actively participates
in group discussions, and does not verbally or nonverbally threaten the
teacher. Teachers rely upon these students as a gauge of their effec-
tiveness, because these are the students who they believe to be most
attentive.

Summary

This section has been devoted to a review of literature relevant
to the specific research questions of this dissertation. Person per-
ception, which provided a theoretical perspective for the study, showed
that person perception and communication are inextricably interwoven.
Each impacts on the other. Person perception in the classroom was
examined to show how teachers' perceptions of their students might in-
fluence the interaction in this setting. The literature provided evi-
dence that teachers do communicate differentially with students for whom
they have different sets of perceptions, Previously conducted research
on teacher verbal messages in relation to their perceptions of student-
related variables also was reviewed. In general, the research supports
the assumptions that teachers communicate more frequently and more fav-
orably with students they perceive positively, and less frequently and
less favorably with students they perceive negatively. Last, the re-
search on student classroom communication behavior was reviewed to

identify another student related variable that should be investigated in relation to teachers'perceptions. This section described the communication behaviors teachers consider to be appropriate for the classroom. The information from this review also served as the basis for the categories on the Student Classroom Communication Behavior Scale that will be described in Chapter II.

After reviewing the available research, it was evident that the investigation of teachers' messages in relation to their perceptions of their student's classroom communication was important and necessary. Scholars only have focused on how teachers talk with students who are from different backgrounds, or who use appropriate or inappropriate language. Although the communication behavior referred to as communication apprehension has been studied extensively, it has not been examined in relation to teachers' messages. As indicated earlier, teachers often make judgments about a student's achievement or I.Q. based on the student's verbal and nonverbal behaviors. Still researchers have not examined the behaviors directly. If a researcher wants to understand perception, he or she should examine it in relation to dynamic variables i.e., verbal or nonverbal communication. The formation of perceptions of people occurs through communication between people (Laing, et al., 1966; and Smythe & Powers, 1978). The examination of teachers' messages in relation to their perceptions of student communication behaviors would be a significant study.

Examination of the literature also indicates that if research on this topic is to be conducted, careful consideration must be given to the research methods used to answer questions. The literature review

suggests that the findings from previous research were conflicting because of the methods used to answer research questions. For example, researchers have used different methods of identifying teachers perceptions, i.e., rank ordering, adjective checklist, personality scales, none of which directly measured teachers' perceptions (Brophy & Good, 1974). Researchers also have used different techniques to observe teachers. Some researchers collected data with video equipment or through direct observations (Cherry & Berman, 1978). Some researchers did not observe teachers, yet they still made inferences about teachers' verbal messages (Amato, 1975; and McCroskey & Daly, 1976). Another methodological problem is related to the number of teachers observed. Of the studies reviewed above, in only two were more than ten teachers observed (Amato, 1975; and Kranz, et al., 1975) A research experiment of this kind may not require necessarily that a large number of teachers, i.e., 20, be observed. However, a researcher might consider observing ten teachers to be sure of getting a variety of verbal communication styles during teacher-student interactions. Last, even though teachers' messages have been studies, the organization of these messages has not been examined. Investigating how teachers organize their messages to students with different abilities might uncover useful information about teachers' messages not yet known. Given the weaknesses in previous methodologies, the absence of microscopic analysis of teachers' messages, and the overall absence of research on the topic of teachers' messages in relation to their perceptions of students' classroom communication, the specific research questions raised should be answered.

Hypotheses

From the research questions posed earlier, seven hypotheses were proposed for testing. To answer the first research question, five hypotheses were tested.

H_1: There will be significant differences among the frequencies of the ten categories of statements teachers use with students rated high on the SCCBS.

H_2: There will be significant differences among the frequencies of the ten categories of statements teachers use with students rated low on the SCCBS.

These hypotheses were tested to determine whether teachers do distinguish among the statements they use with students in college classrooms. The literature indicates that at the elementary and secondary levels, teachers do make distinctions among the statements the use depending upon how they perceive the students (Brophy & Good, 1974).

H_3: Teachers will use significantly more positive affect statements (praises, listens to, uses ideas) with students they rate high on the SCCBS that with students they rate low on the SCCBS.

H_4: Teachers will use significantly more neutral affect statements (content questions, stimulating questions, lectures, gives orders) with students they rate high on the SCCBS than with students they rate low on the SCCBS.

H_5: Teachers will use significantly more negative affect statements (rejects, rejects with correction, criticizes) with students they rate low on the SCCBS than with students they rate high on the SCCBS.

These three hypotheses were designed to test whether teachers used different statements between the high rated students and the low rated

students at the college level. The hypotheses are directional because the research literature suggests that teachers tend to use positive and neutral statements with students perceived favorably; and they tend to use negative statements with students perceived unfavorably (Brophy & Good, 1974; Cherry & Berman, 1978; and Smythe & Powers, 1978).

A sixth hypothesis was tested to answer the second research question.

H_6: There will be a significant difference between the mean number of statements in teacher messages with students rated high on the SCCBS and the mean number of statements in teacher messages with students rated low on the SCCBS.

This hypothesis was designed to look at the length of teachers' messages in terms of the number of statements in the message. The length of a message was determined this way because the units of analyses were the individual sentences, as well as the sentence in relation to other sentences. The amount of time a teacher spent talking to a student during interaction (e.g., number of seconds) was not of interest in this study.

The third research question was answered in two parts. A seventh hypothesis was tested.

H_7: There will be a significant difference between the mean number of interactions between the teachers and students rated high on the SCCBS and the mean number of interactions between teachers and students rated low on the SCCBS.

This hypothesis was tested to determine whether teachers at the college level interacted more frequently with one group of students than with another group of students. To finish answering the third research question, interactions were analyzed in terms of the type of interaction

in which teachers and students engaged. Percentages were calculated for each interaction type and the findings discussed in Chapter IV.

The last research question was an exploratory question designed to determine the ways teachers organized the verbal statements in their messages. The question asked was:

> How do teachers organize the verbal state-
> ments in their messages when they communi-
> cate with students rated high on the Student
> Classroom Communication Behavior Scale and
> when they talk with students rated low on
> the Student Classroom Communication Behavior
> Scale?

Presently, there is no research reported that describes how teachers organize their messages when they talk with students, to justify the formulation of hypotheses. The answer to the question will provide more specific information about the way teachers talk to different kinds of students.

CHAPTER II

METHODOLOGY

This chapter presents a discussion of the methodology used to answer the questions of this investigation. The chapter will discuss the samples, instrumentation, procedures and data analyses.

Sample

The data employed in this research investigation consisted of two independent samples of communication behavior. Each sample was comprised of teacher verbal statements that occurred in teacher-student interactions. One sample consisted of 591 teacher statements that occurred during interactions with students that teachers had rated high on the SCCBS. The other sample consisted of 325 teacher statements that occurred during interactions with students that teachers had rated low on the SCCBS. Table 1 shows the number of statements in each category of the teacher behavior observation instrument for both the high group and the low group. The number of statements in each sample was based on the sample requirements of the primary statistical test used in this investigation, which was chi square. According to Siegel (1956, pp. 174-179), every cell in the contingency table should have a minimum expected frequency of five. To calculate the expected frequency for each cell, the total number of observations for the row is multiplied by

Table 1

Observed Frequencies in Teacher Behavior Categories
for High Group and Low Group

	Praises	Accepts or Listens	Uses Ideas	Re- jects Ideas	Re- jects w/cor- rection	Criti- cizes	Con- tent Quest	Thought Quest	Gives info	Gives direc- tions
High[1]	35	161	86	22	12	9	68	49	101	48
Low[2]	17	60	34	19	6	12	44	18	71	24

[1] N = 591

[2] N = 325

the total number of observations for the column where the category is located, and divided by the total number of observations (Siegel, 1956, p. 175; and Guilford & Fruchter, 1978, p. 201). If the expected frequency for any of the cells had been less than five, an alternative procedure, the Yates Correction for Continuity, would have been used (Guilford & Fruchter, 1978, p. 202). However, this procedure was not necessary.

The teacher statements observed in this study came from statements that occurred in teacher-student interactions in the classroom. The teachers were ten graduate teaching assistants in the Department of Communication at the University of Oklahoma. All teachers had at least one semester of experience teaching the course Communication 1113, which also was the course where observations were made. Although it might seem that observing the verbal communication behavior of communication teachers would provide misleading information about the way college teachers communicate, in general, the research literature does not provide evidence to support the assumption that communication teachers are different from other teachers. Ten teachers were selected in an attempt to have a variety of communication styles within the interaction method. Teachers were observed throughout three units of instruction. Since it was possible that a teacher's style of communicating might be related to his or her personal interest in the subject matter. Observing teachers across instructional units was an attempt to increase the chances of getting a relatively equal amount of data for all teachers.

The students with whom teachers interacted were undergraduates enrolled in the Communication 1113, which is the introductory level course in speech communication. Because the course content is controlled by a course director, all students are exposed to the same content materials. In an attempt to control for course content, classes were observed between the sixth and twelfth weeks of the semester. By the sixth week of the semester, all students had at least two examinations, one written assignment, and at least three classroom activities. By this time, teachers were familiar with students' names and had formed impressions about their students. Between weeks six and twelve, the course content covered interviewing, group communication, and introduction to public speaking. The course content and related activities usually generated interaction between teachers and students. Classes were not observed after the twelfth week because teachers generally were preparing students for speeches or students were giving speeches. Classes were observed only when teachers were interacting with students. Therefore, prior to each class session, teachers were contacted to be sure they were not lecturing, giving examinations nor listening to speeches. If these activities were occurring in a class, the class was not observed on that day.

Instrumentation

Two different instruments were used in this investigation. The first instrument, which was the Student Classroom Communication Behavior Scale was developed by the researcher. The areas included on the instrument were derived from the literature on student classroom communication summarized in Chapter II. The instrument has three sections:

1. Student initiated interaction with teacher;
2. Student response style to teacher; and
3. Student interaction with classmates.

Each section of the instrument has bipolar adjective scales employing a nine point semantic differential-type scaling procedure. These scales were selected from the Osgood, Suci and Tannenbaum's (1971) research on the semantic differential because they appeared to be very similar to descriptions of acceptable and unacceptable communication behaviors in the classroom.

Each student's score was determined by totaling the rating on each scale and dividing the sum by the number of scales on the instrument. Since there were eight scales on the instrument, the total score was divided by eight. If a student scored from one to three on the SCCBS, he or she was assigned to the low group. If a student scored from seven to nine on the SCCBS, he or she was assigned to the high group.

A pilot study was conducted with a sample of three teachers and 150 of their students. Teachers and students were similar to the ones who were used in the actual research experiment. The teachers were graduate teaching assistants in the Department of Communication at the University of Oklahoma, and the students were undergraduates enrolled in the Communication 1113 course. The pilot study was conducted to determine the validity of reliability of the instrument.

Teachers completed SCCBS forms on 150 of their students. A principle components factor analysis with varimax rotation was used to test validity for the instrument. This analysis yielded a three factor solution with 63.1% of the variance explained by Factor I, 12.9% of the

of the variance explained by Factor II, and 9.9% of the variance explained by Factor III (see Table 2). The information provided from the analysis indicated which dimensions were important to classroom teachers. The original instrument included four sections. The rotated factor analysis showed that items one and two which loaded significantly on Factor I, were the items that corresponded with Student initiated interaction with teacher. Items three, four, and five which loaded significantly on Factor II corresponded with Student response style to teacher. Item six, which loaded significantly on both Factors I and II, was eliminated from the instrument. According to Kerlinger, (1974, pp. 672-673), when a factor loads significantly on more than one factor, it indicates that the item has more than one dimension. Only items that measured one dimension were desirable. Items eight, nine and ten which loaded significantly on Factor III corresponded with Student interaction with classmates. Item seven, which loaded significantly on Factors I and III, was eliminated because it measured more than one dimension. The item also corresponded with a fourth area, which was student listening be-havior. Since the item was eliminated and a fourth factor which might have been related to listening did not emerge from the factor analysis, this section was eliminated from the instrument. The instrument included only those items that significantly loaded on one of the factors (see Table 3). The instrument was revised so that it only had three sections (see Appendix A).

Instrument reliability was determined through inter-item correlations. These correlations indicated the internal consistency estimate of reliability for the instrument. It also yielded a reliability

Table 2

Variance Explained by
Factors on SCCBS

Factor	Eigenvalue	Percent of Variance	Cummulative Percent
1	6.31	63.1	63.1
2	1.29	12.9	75.9
3	.99	9.9	85.9
4	.53	5.3	91.1
5	.36	3.6	94.7
6	.19	1.9	96.2
7	.16	1.6	98.2
8	.09	1.0	99.1
9	.07	.7	99.8
10	.02	.2	100.0

Table 3

Varimax Rotated Factor
Matrix, SCCBS

	Factor 1	Factor 2	Factor 3
V1	.17	.09	.90
V2	.35	.44	.72
V3	.35	.77	.27
V4	.27	.92	.13
V5	.18	.91	.16
V6	.66	.60	.07
V7	.82	.33	.67
V8	.80	.33	.26
V9	.89	.23	.20
V10	.91	.25	.09

coefficient for the instrument. If the reliability coefficient ranges between .3 and .8, the test generally is regarded as acceptable (Guilford & Fruchter, 1978, pp. 356-358). The reliability coefficient for this instrument was .78.

The second instrument was a modified version of the Hugh Perkins Teacher Behavior Observation System (Simon & Boyer, 1974). It was designed to categorize the verbal statements of teachers from direct observations in class or from videotapes. In this study, teachers' verbal statements were observed with video equipment. Of the 99 observation instruments described in Simon and Boyer, this one seemed most appropriate for the research experiment. Other instruments were designed to observe interaction between participants as a unit, or they were time sample instruments where data had to be collected every few seconds. None of the instruments were oriented specifically for the college classroom. However, one instrument appeared to be adaptable to the college classroom, and to the data that needed to be collected. Several changes in the instrument were made to make it appropriate for this study. One category, which was designed to code the teacher's behavior when he or she was not interacting with students (i.e., giving a test or not present in the classroom was not included in the instrument. The instrument also included a section designated as teacher roles, and it was eliminated. One category was added to the instrument, which was rejection with correction to distinguish between the two kinds of rejection statements teachers used with students. After revisions, the instrument had ten categories and the categories were organized into three major groups (see Appendix B).

Group One, which was labelled positive affect statements, had three categories. The first category consisted of statements where the teacher enthusiastically praised or encouraged the student. Sample statements from the data included:

"That's a boy!"
"Far out!"
"You're doing great!"
"Keep on plugging!"

The second category consisted of statements that showed that the teacher was listening to the student and accepted what the student said. Sample statements from the data included:

"O. K."
"Yeah."
"Mmm-Mmm."

The third category included statements where the teacher used the student's ideas. Sample messages from the data included:

"Johnny says there are four categories."
"Three of those types as Rebel said were not
  included."
"You idea about role conflict in groups
  should be considered by the rest of us."

Group Two, which was labelled negative affect statements had three categories. The first category referred to teacher statements where the teacher rejected the student's ideas. Sample statements from the data included:

"No."
"Not quite."
"You can't be serious."

The second category included statements where the teacher rejected the student's ideas and corrected the student. The teacher might give the student a more appropriate response. Sample statements from the data

included:

>"No, there are three."
>"Not exactly, although talking might be
> a better way of handling it."

The third category referred to statements where the teacher criticized

the students' verbal or nonverbal behaviors. Sample statements from

the data included:

>"Don't say the test is not fair because it
> was hard."
>"Well it's in the book, so read it."
>"We're not there yet, but we'll get to it
> when I say so."
>"Why didn't you speak up, Ray?"

Group Three, which was labelled neutral affect statements,

consisted of four categories. The first category included statements

where the teacher asked questions related to content. These questions

were usually yes-no type, or questions beginning with the words what, how

many, when, or where. The data also revealed statements beginning with

these words, yet not forming questions related to course content. These

type questions were included in this category. Sample statements in-

cluded:

>"Did you have a question, Mark?"
>"What are the methods of delivery?"
>"What format did you use for deciding?"
>"Is there a better way of choosing a topic?"

The second category refers to questions designed to stimulate student

thinking. These questions usually bega with the words why or how.

Sample statements from the data included:

>"How might they have resolved their conflict?"
>"Why didn't they listen to you, Mark?
>"Why is conversational style better?"

The third category included statements where the teacher gave the

student information or gave his or her opinions. Sample statements from
the data included:

> "When two people have completely different
> goals, the chances of conflict are greater."
> "I think you would have done better if I had
> given you more information."

The fourth category included statements where the teacher gave the
student directions or ordered the student to do something. Sample
statements from the data included:

> "Rebel." (calling on the student to respond)
> "Jeannie, read that section on page 132."
> "John, you work in this group."
> "Let's see, your group will be first."

In the pilot study described above, three teachers were observed
to give the researcher using the video equipment and the teacher behavior
category system. Consideration was given to placement of equipment in
classrooms so that every student could be observed easily when talking
and to avoid distracting both students and teachers while taping. After
the data had been collected, the category system was used to categorize
teachers' statements. As a result of this preliminary investigation,
changes in the category system described on p. 39 were made to adapt to
the needs of this study. Additionally, these data provided sample state-
ments that could be used in the training program for coders.

Videotaping

To facilitate the coding of teachers' statements, classroom
interactions were observed with videotape recording equipment. Classes
were videotaped as a way of identifying interactions between teachers
and students rated high on the SCCBS or students rated low on the SCCBS.

Originially, audiotape equipment was to be used for data collection to insure that all teacher and student statements were recorded. However, the presence of all the equipment inhibited the students and made it difficult to hear them when they did talk. Therefore, only video equipment was used. With the video equipment placed at the back of the room, students appeared to be more relaxed. All teacher statements still were clearly audible with only video equipment. Some student statements were not always clear, however, it was never necessary to eliminate data because of it. The tape simply had to be replayed several times until the statements were heard accurately.

Video equipment was placed at the center back of the classroom. The position of the equipment in the classroom was designed to minimize the chance of the researcher and the equipment being a distraction to teachers and students. Regardless of the length of the class, only 30 minute segments of each class session was filmed. Taping did not begin until at least ten minutes after the class started. This gave the teacher a chance to take roll and also allowed time for late students to arrive.

Procedures

Prior to all data collection, a memorandum was sent to the graduate teaching assistants, who had taught the Communication 1113 course for at least one semester, informing them about the study (see Appendix C). The memorandum briefly described the study and what they were being asked to do. A follow up meeting with all graduate assistants was held to be sure they understood the research project. Teachers

were told that the purpose of the study was to examine interaction be-
tween teachers and students in communication classes. They were asked
to tell their students that someone would be videotaping their class
at different times during a six week period and to be sure that the
entire class would be willing to participate. Only one class decided
that it did not want to be videotaped.

Teachers also were asked to complete a SCCBS for every student
in their classes. Teachers were told that the purpose of the in-
strument was to get a general profile of how their students communi-
cated in their classroom. One reason for getting teachers to complete
the form at this time was to determine which sections would be observed.
Classes where teachers rated none of the students high or low on the
SCCBS did not provide useful data, because this study was interested in
observing different teachers when they communicated with both high
rated and low rated students. Classes in the study needed at least
three high rated students and three low rated students to be observed.
This decision was made for practical reasons. The time period during
which observations in the classroom could be made was limited. If
classes were observed where fewer than three students were rated high
and fewer than three rated low, it might be necessary to collect data
beyong the twelfth week of the semester. This would be impractical be-
cause students would begin preparing for speeches or presenting speeches.
As a result of this decision, two classes were not observed because
no students were rated low.

A second reason for getting teachers to complete forms was to
determine which teacher-student interactions would be included in the

sample. If this information were known, it would help the researcher determine the number of interactions between teachers and students in both the high and low groups, as well as the number of statements in each category for both groups. This information also helped to determine whether additional videotaping would be necessary. One limitation with collecting and analyzing these types of data is getting a large enough sample to meet the requirements of the statistical tests used. Therefore, the researcher initially had to categorize teacher statements following each videotaped session to determine the number of statements in each category for both groups. If there were an insufficient number of statements, additional taping was necessary. This could be done only with knowledge of which students were rated high or low.

After teachers completed forms and all classes had agreed to participate, ten sections were selected to be observed. The final decision about which classes would be observed was based on scheduling. The Department of Communication usually scheduled three Communication 1113 classes at the same hour. The schedule was set up so that all teachers could be videotaped.

During the two class periods before data collection, each class was observed with the video equipment to get the teachers and students accustomed to the researcher being in the classroom. This also gave the researcher a chance to adjust to any unanticipated environmental factors in the room. At this point it was decided that the audioequipment would not be necessary. The equipment was distracting to many students. Therefore, the audiotape equipment which was located in the front and in the middle of the classroom was elim-

inated.

Data collection began the second week of the semester. A seating chart for every videotaped session was made to facilitate identification of all students. At the beginning of each tape, the camera panned the entire classroom to get at least part of every student's face on camera. The camera also panned the entire class at the end of the 30 minute segments to get the students who might have arrived late. During the videotaping, the camera focused on the student whenever he or she talked. If the student was located in the room so that he or she and the teacher could be on film simultaneously, then the camera focused on both of them. However, previous experience with this camera indicated that it would be better to keep the camera focused on the student. Being able to clearly identify the student as well as understand the student's messages was very important to coding teachers' statements. Immediately following the videotaping, the researcher asked the teacher to view the first several minutes of videotape without the audio, where the camera panned the classroom. At this time, the teachers identified the students according to the seating chart.

At the end of each day of videotaping classes, the researcher examined each tape, identified the interactions between teachers and high rated students, and teachers and low rated students, and marked the location of these interactions on coding forms. A record of the number of teacher statements in each category for both groups was kept. The data collection process ended during the eleventh week of the semester. Observations had been made in classes when the course content

was related to group discussion, message preparation, styles of delivery and a review discussion for a department examination.

After all data were collected, a debriefing session was held for the teachers. During this session, they were informed more extensively about the purposes of the investigation.

Coding Procedures

Two graduate students who did not participate in the study were selected to code the teachers' statements. They were selected because they had previous experience coding teacher behavior in the classroom. Two coding forms were designed by the researcher. The first coding form, which was used by the researcher included the ten teacher behavior categories, the teacher's name, the student's name, a notation of whether the student was rated high or low, and the location of the interaction on the videotape. This form enabled the researcher to keep a record of the number of interactions between teachers and students rated high or students rated low on the SCCBS, as well as the type of interactions in which teachers and students were engaged (see Appendix D). The second coding form was used by the coders (see Appendix E). It included the teacher's name and the tape number. The coders did not have access to any information about the students. This second coding form made it easier to keep track of the number of statements for each category and the number of statements a teacher made in each message.

A training session for the coders was set up. Prior to the training session, coders were given the categories along with sample statements so they could become familiar with the observation system.

During the training session, videotaped classes where teachers and students interacted were shown to the coders to give them practice coding live verbal statements. Both coders coded all of the data.

Intercoder reliability was determined by using the Spearman Brown Formula to compare coders ratings on all data. The intercoder reliability coefficient was .913. For data analysis, only one coder's ratings were used. This procedure is commonly used by researchers investigating similar research problems (Flanders, 1970 and Amidon & Hunter, 1967). The ratings from the coder with the most experience coding teacher statements were used for data analysis.

Data Analyses

To test the hypotheses of this investigation, three different statistical analyses were used. The level of confidence for rejection of all hypotheses was set at .05.

H_1: There will be significant differences among the frequencies of the ten categories of statements teachers use with students rated high on the SCCBS.

H_2: There will be significant differences among the frequencies of the ten categories of statements teachers use with students rated low on the SCCBS.

To test these two hypotheses, a one sample chi square statistical test was used. This statistical procedure is used to determine whether significant differences exist between the observed frequencies in a category and the expected frequencies in the category. The expected frequencies were calculated before computing chi square. To determine the frequency, the total number of observations for all categories is divided

by the number of categories. The researcher determines before data analyses what the expected frequencies will be. The expected frequencies might be based on previous research, or the researcher decides that the expected frequencies would be equal for all categories. Since there was no previous research to help determine what the expected frequencies should be, this researcher decided that the expected frequencies would be equal for all categories (Siegel, 1956, pp. 42-44).

H_3: Teachers will use significantly more positive affect statements (praises, listens to, uses ideas) with students they rate high on the SCCBS than with students they rate low on the SCCBS.

H_4: Teachers will use significantly more neutral affect statements (content questions, stimulating questions, lectures, gives orders) with students they rate high on the SCCBS than with students they rate low on the SCCBS.

H_5: Teachers will use significantly more negative affect statements (rejects, rejects with correction, criticizes) with students rated low on the SCCBS than with students rated high on the SCCBS.

To test these three hypotheses, a chi square statistics test for independent samples was used. This statistical procedure is used to determine whether the difference between the observed and expected frequencies in one sample is significantly different from the difference between the observed and expected frequencies in another sample. The expected frequency for this statistical procedure is directly related to the number of observations in each category. To determine the expected frequency for each category, the total number of observations for the row where the category is located is multiplied by the total

number of observations for the column where the category is located

and then divided by the total number of observations for both samples.

H_6: There will be a significant difference
between the mean number of statements in
teacher messages with students rated high
on the SCCBS and the mean number of state-
ments in teacher messages with students
rated low on the SCCBS.

H_7: There will be a significant difference
between the mean number of interactions
between the teachers and students rated
high on the SCCBS and the mean number of
interactions between teachers and students
rated low on the SCCBS.

To test these two hypotheses, the t-test for independent samples was

used to compare the means for the two groups. This statistical proce-

dure compares groups that employ interval level data.

CHAPTER III

RESULTS

This chapter will present the results of the statistical tests
used to test the seven hypotheses.

H_1: There will be significant differences
among the frequencies of the ten cate-
gories of statements teachers use with
students rated high on the SCCBS.

A one sample chi square test was used to test this hypothesis. The com-
puted χ^2 of 168.73 was significant at the .05 level of confidence
(two-tailed) with degrees of freedom set at nine. This hypothesis
was accepted at the .05 level indicating that there were significant
differences among the frequencies of statements teachers used with
students rated high on the SCCBS. See Table 4 for the results of the
test.

H_1: There will be significant differences
among the frequencies of the ten cate-
gories of statements teachers use with
students rated low on the SCCBS.

A one sample chi square test was used to test this hypothesis. The
computed χ^2 of 335.93 was significant at the .05 level of confidence
(two-tailed) with degrees of freedom set at nine. This hypothesis was
accepted indicating that there were significant differences among the

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Table 4

Observed and Expected Frequencies in High Group

and Results of χ^2 Test

Praises	Accepts or Listens	Uses Ideas	Rejects Ideas	Rejects w/cor- rection	Criti- cizes	Con- tent Quest	Stimu- late Quest	Gives Info	Gives Orders
35 (59.1)	161 (59.1)	86 (59.1)	22 (59.1)	12 (59.1)	9 (59.1)	68 (59.1)	49 (59.1)	101 (59.1)	48 (59.1)

$$\chi^2 = 168.73, \text{ significant}$$

Table 5

Observed and Expected Frequencies in Low Group

and Results of χ^2 Test

Praises	Accepts or Listens	Uses Ideas	Rejects Ideas	Rejects w/cor- rection	Criti- cizes	Con- tent Quest	Stimu- late Quest	Gives Info	Gives Orders
17 (32.5)	80 (32.5)	34 (32.5)	19 (32.5)	6 (32.5)	12 (32.5)	44 (32.5)	18 (32.5)	71 (32.5)	24 (32.5)

$$\chi^2 = 335.93, \text{ significant}$$

frequencies of statements teachers used with students rated low on the

SCCBS. Table 5 shows the result of the test.

H_3: Teachers will use significantly more posi-
tive affect statements (praises, listens to,
uses ideas) with students rated high on the
SCCBS than with students rated low on the
SCCBS.

A 3 X 2 chi square statistical test was used to test this hypothesis.

The computed χ^2 of .8 was not significant at the .05 level of con-

fidence (one-tailed) with degrees of freedom set at two. This hy-

pothesis was rejected indicating that teachers did not use signifi-

cantly more positve affect statements (praises, listens to and uses ideas)

with students rated high than with students rated low. Table 6 shows

the result of the chi square test.

Table 6

Observed and Expected Frequencies of
Positive Affect Categories for
High and Low Groups

	Praises or Encourages	Listens to or Accepts	Uses Student Ideas
High	35 (35.51)	161 (164.56)	86 (81.94)
Low	17 (16.5)	80 (76.44)	34 (38.06)

χ^2 = .8, not significant

H$_4$: Teachers will use significantly more
       neutral affect statements (content ques-
       tions, stimulating questions, lectures,
       gives orders) with students rated high
       on the SCCBS than with students rated
       low on the SCCBS.

A 4 X 2 chi square statistical test was used to test this hypothesis.

The computed χ^2 of 1.97 was not significant at the .05 level of con-

fidence (one-tailed) with degrees of freedom set at three. This

hypothesis was rejected indicating that teachers did not use signi-

ficantly more neutral affect statements (content questions, stimu-

lating questions, lectures gives orders) with students rated high than

with students rated low on the SCCBS. Table 7 shows the result of the

chi square test.

Table 7

Observed and Expected Frequencies of
Neutral Affect Categories for
High and Low Groups

	Content Questions	Stimula- ting Ques- tions	Lectures or Gives Info	Directs or Gives Orders
High	68 (70.60)	49 (42.23)	101 (108.42)	48 (45.38)
Low	44 (41.67)	18 (24.93)	71 (63.99)	24 (26.79)

χ^2 = 4.97, not significant

H$_5$:   Teachers will use significantly more
        negative affect statements (rejects,
        rejects with correction, criticizes)
        with students rated low on the SCCBS
        than with students rated high on the
        SCCBS.

A 3 X 2 chi square statistical test was used to test this hypothesis.

The computed χ^2 of 2.21 was not significant at the .05 level of con-

fidence (one-tailed) with degrees of freedom set at two. This hy-

pothesis was rejected indicating that teachers did not use signi-

ficantly more negative affect statements (rejects, rejects with cor-

rection and criticizes) with students rated low on the SCCBS than with

students rated high on the SCCBS. Table 8 shows the result of the

chi square test.

Table 8

Observed and Expected Frequencies for
Negative Affect Categories for
High and Low Groups

	Rejects Student's Ideas	Rejects with Correction	Criticizes or Justifies Authority
High	22 (22.04)	12 (9.68)	9 (11.29)
Low	19 (18.96)	6 (8.33)	12 (9.71)

χ^2 = 2.21, not significant

H_6: There will be a significant difference between the mean number of statements in teacher messages with students rated high on the SCCBS and the mean number of statements in teacher messages with students rated low on the SCCBS.

An independent samples t-test was used to test this hypothesis. The computed t of .06 was not significant at the .05 level of confidence (two-tailed) with degrees of freedom set at 555. This hypothesis was rejected indicating that there was no significant difference between the mean number of statements in teacher messages with students rated high on the SCCBS and the mean number of statements in teacher messages with students rated low on the SCCBS. Table 9 shows the result of the t-test.

Table 9

Result of t-test Computed on Mean
Number of Statements in Teacher
Messages with High Group and
Mean Number of Statements
in Teacher Messages with
Low Group

Mean for High Group	Mean for Low Group	t	p
1.47	1.53	.06	not significant

H_7: There will be a significant difference between the mean number of interactions between teachers and students rated high on the SCCBS and the mean number of interactions between teachers and students rated low on the SCCBS.

An independent samples t-test was used to test this hypothesis.

The computed t of 6.25 was significant at the .05 level of confidence (two-tailed) with degrees of freedom set at 18. This hypothesis was accepted indicating that there was a significant difference between the mean number of interactions with students rated high on the SCCBS and the mean number of interactions with students rated low on the SCCBS. Table 10 shows the results of the t-test.

Table 10

Result of t-test Computed on Mean Number of
Interactions with High Rated Students
and Mean Number of Interactions
with Low Rated Students

Mean for High Group	Mean for Low Group	t	p
33	16.2	6.25	significant

CHAPTER IV

DISCUSSION

The purpose of this study was to investigate whether teachers'

use of verbal statements with students they perceive as acceptable

classroom communicators was different from the verbal statements

they used with students they perceived as unacceptable classroom com-

municators. The absence of research related to this problem led this

researcher to ask four research questions. The first question asked

was:

> Are the verbal statements teachers use with
> students rated high on the Student Classroom
> Communication Behavior Scale different from
> the verbal statements they use with students
> rated low on the Student Classroom Communi-
> cation Behavior Scale?

To answer this question, five hypotheses were tested. The first

hypothesis, which was concerned with whether there would be signif-

icant differences among the frequencies of the ten categories of

statements teachers used with students rated high on the SCCBS, was

accepted. Inspection of the data indicated that the largest number

of observations occurred in the listens to or accepts ideas cat-

egory where 27% of the statements were observed. The category with

the least number of observations was criticizes or justifies authority,

where .01% of the statements were observed. This finding was consistent with the literature cited in Chapter I. Generally, teachers used more positive or neutral affect statements, i.e., praise, encouragement, asking questions or giving information with students perceived favorably (Blakley, et al., 1972; Cornbleth, 1973; Good, 1970; and Woolfolk, 1978).

The second hypothesis, which was concerned with whether there would be significant differences among the frequencies of the ten categories of statements teachers used with students rated low on the SCCBS, was accepted. Inspection of the data revealed that the largest number of statements were observed in the listens to or accepts ideas category, where 18% of the statements were observed. The category with the least number of observations was the rejects with correction , where .01% of the statements were observed. The findings reported here provide further evidence of the conflicting results in the area of teachers' communication behavior and their perceptions of students. The literature indicates that teachers use more negative statements, i.e., rejection, criticism with students they perceive less favorably (Brophy & Good, 1974; Cherry & Berman, 1978; and Cornbleth, et al., 1974). However, other studies did not report these findings (see Dunkin and Biddle, 1974). An explanation of these findings will be presented later in this chapter.

The third hypothesis, which tested whether teachers used significantly more positve affect statements with students rated high on the SCCBS than with students rated low on the SCCBS, was rejected.

The fourth hypothesis, which tested whether teachers used significantly more neutral affect statements with students rated high on the SCCBS than with students rated low on the SCCBS, also was rejected. The fifth hypothesis tested whether teachers used significantly more negative affect statements with students rated low on the SCCBS than with students rated high on the SSCBS. This hypothesis also was rejected. Rejection of hypotheses three, four and five indicated that teachers did not significantly differ in the kinds of statements they used with the two groups of students.

Acceptance of the first two hypotheses and rejection of hypotheses three, four and five point to the continuing problem of inconsistent findings in the literature. However, several reasons might explain the results reported. First, the presence of an outsider and video equipment might have inhibited both teachers and students. Two of the teachers were noticeably apprehensive in front of the camera throughout the taping experience. Frequently, one teacher would stop during the lesson and ask the researcher to confirm or deny information presented to the students. Even though teachers were aware that the purpose of the taping was not to evaluate their teaching, they still might have been conscious of the way they would be perceived as communicators in general, and as teachers specifically. These findings might explain why the majority of the statements were coded in the positive or neutral affect categories. Two teachers did not use any negative affect statements with either high or low students.

Students in several classes also appeared to be apprehensive

about being videotaped. This behavior was unexpected. During the de-
briefing session, six teachers indicated that dramatic changes in some
of their students classroom behavior occurred. For example, teachers
noted that there was more class participation, especially among the
students rated low, and less disruptive behavior. In one class,
some students jokingly indicated that they "didn't want the teacher
to look bad." If students exhibited acceptable classroom communication,
then teachers probably would respond to them more positively. If
students had exhibited their "usual" classroom communication behaviors,
then a variety of teachers' statements might have been observed.

The decision to videotape classes with the equipment in the
room was made primarily on the previous research conducted in this
area. Brophy and Good, (1974), Flanders (1967), and Amidon and
Hunter (1967) all indicate that in their research investigations,
teachers and students usually relaxed after two or three days of video-
taping. They ignored the presence of the equipment in the room.
Therefore, the decision was made to videotape classes with the equipment
in the room.

A second explanation for the absence of significant differences
among certain categories for the high rated and the low rated students
may be related to the educational level of the classes that were
observed. Cornbleth and Button (1973) indicated in their analysis, that
the findings for the elementary level were different from the findings
for the secondary level. This led them to the assumption that the
grade level of the students might be related to teachers' perceptions

as well as their communication behaviors. In addition, some of the
categories on the observation instrument might have been inappropriate
for the college level. The assumption that students should behave
differently in college classrooms than in elementary or secondary level
classrooms might determine the behaviors of both teachers and students.
Informal discussions with the teachers in this study indicate that
they expect college students to behave in an adult and mature manner.
To these teachers, disruptive behaviors, i.e., talking when others are
talking, are unacceptable in the college classroom. When faced with
disruptive behavior, teachers did not appear to be comfortable handling
the situation. When disruptive behavior was observed in the classes,
teachers handled the situation in one of three ways. The teacher
either directed critical statements to the entire class, i.e., "Please
keep the noise down.", talked with the students individually after
class, or ignored the behavior. These kinds of behaviors could not be
used as data because this study was interested in verbal statements
directed toward specific students.

Another explanation for the low number of observations in the
negative affect categories might be related to the kinds of inappro-
priate behaviors students exhibit in class. Negative behaviors ob-
served in elementary or secondary classrooms might not be observed in
college classrooms. For example, at the lower grade levels, teachers
might consider walking around the classroom throwing paper, classroom
brawls or gum chewing as negative behaviors. In college classrooms,
frequent challenges to the teacher, reading a newspaper, sleeping in

class, or talking to classmates during lectures might be perceived as negative behaviors. Some negative behaviors might not be perceived as very disruptive and therefore would not require harsh, critical statements by the teacher. Also, if the teacher perceives the student as an adult, then the teacher may choose to "discuss" with the student his or her negative behaviors, instead of publicly reprimanding the student like a child.

Lack of formal instructional training and limited teaching experience might explain the absence of variation in teacher statements. Only three of the teachers in this study had ever received formal instruction in teaching methods. The teachers also averaged two years teaching experience. Teachers simply might not have known how to respond to certain student behaviors due to lack of training.

Still, another reason for the small number of observations in the negative affect categories might be related to teachers' knowledge of communication principles. At some point in their education, communication teachers have been exposed to the concept of feedback and its impact on people. Teachers might have felt that too much negative feeback would have discouraged students. Therefore, they limited the kinds of statements they made in negative affect categories. Even though the number of observations in the negative category of rejects ideas was small, an interesting characteristic of the rejection statements was noticed. Many of the statements were partial rejection statements. An example from the data was "John, you're almost there." The teacher told the student that he was not completely wrong and yet, not completely right. Even though teachers in this study might have had

limited training as teachers, they might have been sensitive to the importance of feedback in effective teaching. A more detailed examination of the teachers' rejection statements will be presented later in this chapter.

To conclude, there might be several explanations for the findings reported thus far in this study. First, the video equipment might have inhibited both teachers and students, thus affecting their communication behaviors. Students' and teachers' knowledge of appropriate classroom communication behaviors for college students might have caused both to behave in ways that were not expected. Teachers' inexperience might have caused teachers to ignore the inappropriate communication behavior instead of responding negatively to it. Last, the use of positive and neutral affect statements with both groups of students might have been the result of knowledge of communication principles, particularly the effect of feedback on people.

The second research question asked was:

Are the verbal statements teachers use in
their messages with students rated high on
the Student Classroom Communication Behavior
Scale different from the number of verbal state-
ments teachers use in their messages with stu-
dents rated low on the Student Classroom Com-
munication Behavior Scale?

To answer this question, one hypothesis was tested. The sixth hypothesis focused on whether teachers used significantly more statements in a message when talking with students rated high on the SCCBS than with students rated low on the SCCBS. This hypothesis was rejected. The purpose of this hypothesis was to determine whether teachers used

more statements with students rated high than with students rated
low. Analysis of the data indicated that on the average, teachers'
messages contained the same number of statements. The mean number of
statements in teachers' messages with the students rated low was 1.53
and the mean number of statements in teachers' messages with students
rated high was 1.47 (see Table 9, p. 57).

This hypothesis has not been tested in previous research
studies. Researchers usually examined the length of message in terms
of number of seconds, or simply speculated about the length of messages.
For example, Kranz, et al. (1970) found that teachers had more contacts
with high rated students than with low rated students. A clear explan-
ation of the term "contacts" was not presented in their article. However,
from this finding, they surmised that teachers talked longer with their
students. One article did examine how long teachers talked to students,
and found that teachers used longer responses with high achieving stu-
dents (Cornbleth, et al., 1974). Whether or not the finding reported
here conflicts with previous research findings can not be determined
since the concept of length in this study was different from the concept
in other studies.

The third research question asked was:

How are the interactions between teachers and
students rated high on the Student Classroom
Communication Behavior Scale different from
the interactions between teachers and students
rated low on the Student Classroom Communi-
cation Behavior Scale?

The answer to this question was determined in two parts. First, hy-
pothesis seven was tested. This hypothesis was concerned with whether

there was a significant difference between the mean number of inter-
actions teachers had with students rated high on the SCCBS and the
mean number of interactions teachers had with students rated low on the
SCCBS. This hypothesis was accepted. This finding also was consistent
with the research literature(Good, 1970; Kranz, et al., 1970; and
Rist, 1970). In their literature review, Brophy and Good (1974) posited
that teachers usually would interact at least twice as much with stu-
dents rated high as they would with students rated low. In this
study, teachers did interact with high rated students twice as much as
they did with low rated students.

To further answer the third research question, the different
kinds of interactions were examined. In Chapter I, a description of
the interactions where teachers' statements were observed was presented.
The interactions could take one of the following forms:

1. teacher initiated message, student responding
   message;

2. teacher initiated message, student responding
   message, teacher responding message;

3. teacher initiated message, student responding
   message, teacher responding message, student
   responding message;

4. student initiate message, teacher responding
   message;

5. student initiated message, teacher responding
   message, student responding message; and

6. student initiated message, teacher responding
   message, student responding message, teacher
   responding message.

The percentages of the different interactions were calculated for both groups of students. Table 11 presents the number of observations and the percentages for the high group and the low group.

Table 11

Types of Interactions in Which
Teachers and Students Engage

	Teacher Student	Teacher Student Teacher	Teacher Student Teacher Student	Student Teacher	Student Teacher Student	Student Teacher Student Teacher
High	10 (3%)	43 (13%)	3 (1%)	198 (60%)	40 (12%)	36 (11%)
Low	6 (4%)	117 (72%)	2 (1%)	32 (20%)	5 (3%)	0 0

From the percentages presented in Table 11, general trends are evident. Eighty-three percent of the interactions between teachers and students in the high group were student initiated interactions. The majority of the student initiated interactions were the student-teacher type, where 198 or the 330 interactions were this type. When students initated interactions, they either asked the teacher a question, or responded before the teacher called on someone to respond. This finding contradicts the research literature. Brophy and Good (1974) and Cornbleth and Button, 1973) report that teachers tend to initiate interactions with students rated positively. Teachers see these students as cooperative and enthusiastic participants, and therefore, give them

more opportunities to respond in class. The fact that these students tend to initiate interactions with teachers also validates the SCCBS. One of the areas on the instrument is concerned with student's willingness to interact with the teacher. If a student was rated high by his or her teacher, the student's behavior should confirm the teacher's rating.

The percentages in Table 11 also show that 73.4% of the interactions in the low group were teacher-initiated interaction. The majority of the teacher initiated interactions were teacher-student-teacher type, where 117 of the 162 interactions were this type. When teachers initiated interactions with students, they were calling on the students to respond. This finding also was inconsistent with the research literature. Once again, Brophy & Good, Cornbleth and Button, show that teachers usually do not initiate interactions with students perceived negatively.

One reason for the large number of teacher initiated interactions in the low group might be that teachers felt some pressure to get their students to participate in the class. Since they knew the researcher was interested in interaction, they might have tried to get as many students as possible involved in classroom discussions. During the debriefing session, one teacher indicated that she was glad when the taping ended, because she could not figure out ways to get the students to talk. She did not feel that her class was inhibited, they just did not talk much.

The last research question asked was:

How do teachers organize the verbal statements
in their messages when they communicate with
students rated high on the Student Classroom
Communication Behavior Scale and when they com-
municate with students rated low on the Stu-
dent Classroom Communication Behavior Scale?

To answer this question, teachers' verbal statements were further
analyzed in relation to their location within a message as well as
the content of the statements. The purpose of this analysis was to
determine how teachers organize statements in their messages when in-
teracting with students rated high and students rated low. One major
limitation to doing this analysis with these data was the small amount
of data available. There were 366 teacher messages in the high group,
of which 249 were one statement messages; 102 were two statement mes-
sages; and 15 were messages with three or more statements (see Table 12).

Table 12

Kinds of Messages Teachers
Used with Both Groups
of Students

	One Statement Messages	Two Statement Messages	Three or more Statement Messages	Total No. of Messages
High	249 (68%)	102 (28%)	15 (4%)	366
Low	131 (62%)	74 (35%)	6 (3%)	212

In the low group, there were 212 teacher messages of which 131 were one statement messages; 74 were two statement messages; and six were messages with three or more statements (see Table 12). The most meaningful information came from the two statement messages. However, because of the limited amount of data for analysis, the conclusions discussed in this section are tentative.

Praises or encourages. When teachers used praising statements in their messages with students rated high, their praising statements usually were followed with more praising statements. Of the 21 statements coded in this category, 16 were followed with more praising or encouraging statements. When teachers used praising statements with students rated low, these statements were not followed with other statements. Praising statements were observed only in one statement messages with students rated low. These data suggest that within a message, teachers give more praise to high rated students than to low rated students. Although the analysis of data here is different from the analysis used in the testing of hypotheses, these findings appear to be consistent with the literature (Brophy & Good, 1974).

Listens to or accepts ideas. Patterns clearly were evident when teachers used these statements with students rated high. Of the 31 statements coded in this category for the high group, nine were followed with more listens to or accepts statements; eight were followed by lectures or gives information statements; and eight others were followed by praise or encourages statements.

When teachers communicated with students rated low, patterns

were not easily discernible. Of the 20 statements coded in this category, only eight were followed with more listens to or accepts statements. Patterns in the remaining messages with listens to or accepts ideas varied.

Uses students' ideas. When teachers used students' ideas with students rated high, the statements were followed with gives information or asks questions statements. The data showed that of the 15 statements coded in this category, seven statements were followed with lectures or gives information statements; and seven were followed with asks questions statements.

The findings were different for this category in the low group. Of the 25 statements coded as uses students' ideas, no patterns were identified.

Gives orders. The most noticeable trend for statements coded in this category was observed in the content of the statements. Whenever teachers gave directions or orders, they called on students to respond. Teachers would call the students by name indicating that the student should respond. The data showed that of the 48 statements coded in this category for the students rated high, 40 were statements where the teacher called on students to respond. Of the 24 statements coded in this category for students rated low, 20 were statements where the teacher called on the student to respond. Occasionally, teachers varied the content of these statements. When the teacher did give directions or orders, the statements were directed to the entire class and not to specific students. For example, a teacher might say "Please read chapter 9 by Friday " or "Get into your groups."

Rejects ideas. This category provided the most interesting information about the way teachers organize their statements. Once again, the conclusions can only be considered tentative because of the limited amount of data. Overall, when teachers rejected the ideas of students rated high, the statements were followed by lectures or gives information statements. In the followup statements, teachers usually corrected the student's response. Of the 13 statements coded in this category, 12 were followed by lectures or gives information statements. In 11 of the statements coded as lectures or gives information, teachers corrected the students' response.

A similar pattern was noticed with students rated low. Of the 11 statements coded in this category for the students rated low, nine were followed with lectures or gives information statements. The data suggest that for both groups of students teachers might reject a student's response, but an appropriate answer was given to students.

Examination of these findings for the two groups would suggest that there are no differences between the two groups. However, the content of the rejection statements revealed that teachers did vary their statements according to their perceptions of students. Teachers tended to use partial rejection statements when interacting with students rated high. Partial rejection statements could be interpreted as acceptance or rejection. Examples from the data include:

"You're almost there."
"Well, sorta."
"Just a little bit more."

Teachers did not totally reject the students' ideas; yet they did not totally accept the ideas. Of the 22 statements coded in this category

for the students rated high, 19 were partial rejection statements (see Table 13).

Table 13

Kinds of Rejection Statements
Used with Both Groups
of Students

	Total Number of Rejection Statements	Partial Rejection Statements	Total Rejection Statements
High	22	19	3
Low	19	6	13

The content of the rejection statements with students rated low was different from the content of rejection statements with students rated high. Teachers tended to use total rejection statements when rejecting these students' ideas. Examples from the data include:

> "No."
> "That's not right."
> "That won't do."

Of the 19 rejection statements coded for this group, 13 were total rejection statements (see Table 13).

From the data presented here, trends were noticed in the content of teacher's statements depending upon whether they were interacting with students rated high or students rated low. This analysis suggests that teachers might make subtle distinctions in the words they select when rejecting students' ideas. This might be attributed to

teachers' knowledge of feedback in the communication process. By using patial rejection, the teacher lessens the impact of negative feedback on the student.

If these findings on the content of teachers' rejection statements are indicative of the way teachers communicate with students, then teachers do differentiate the statements they use according to their perceptions of students. When teachers reject the ideas of students perceived positively, they might be trying to discourage the students by totally rejecting their ideas. Instead, teachers organize the content of their statements in a way to let the student know that although the answer was incorrect, he or she should not be discouraged by the inaccuracy. In contrast, if a student is perceived negatively, the teacher may not be concerned with the impact of the negative feedback on the student, and therefore does not worry about its content.

Further analysis of teacher's rejection statements yields more interesting information about the organization of statements in teachers' messages. Regardless of whether they interacted with students rated high or students rated low, when rejection statements were the second or third statement in a message, all preceeding statements were coded as listens to or accepts. These conclusions are drawn cautiously because of the extremely small amount of data available. However, the pattern worthy of discussion here. In the high group, only three statements and in the low group, only two statements were observed as the second or third statements in messages. All were preceeded by listens to or accepts statements. If this pattern continued to exist

in larger samples of teacher messages, the significance might be great. First, it suggests that teachers try to organize all their messages with rejection statements in ways that make the message seem less like a rejection statement. Teachers first tell the student that they heard and underst. d what they said, but the response was not correct. If teachers do respond to students this way, it shows that they are concerned about the way students interpret the negative feedback. What teachers might not realize is that messages that contain a listens to or accepts statement, followed with a partial rejection statement might not be interpreted differently than messages with a listens to or accepts statement, followed with a total rejection statement would. Even though teachers may select carefully the content and organization of their statements, they alter their statements slightly. This researcher suggests the alterations are directly related to their perceptions of the students. Even communication teachers who have received training in effective communication and are aware of the impact of different messages can make these subtle distinctions in their messages to students.

Summary

The research questions posed in this dissertation have been answered. Hypotheses were tested in order to answer some of these questions. In general, the hypotheses indicated that teachers did not vary significantly the use of statements with the two groups of students. Also, observations of interactions between teachers and students suggest that students who are rated high tend to initiate

interactions with teachers; and teachers tend to initiate interactions with students rated low. Overall, these findings were not consistent with the research literature. In fact, they were opposite the previous findings. However, examination of the organization and content of teachers' statements does suggest that teachers differentiate their statements depending upon their perceptions of students. The paucity of data available for analyzing the content and organization of statements only makes these findings tentative. However, this evidence points to the continued research necessary in this area.

Limitations

Several factors were considered limitations to the study. Overall, there were enough data to meet the assumptions of the statistical tests used, but not enough data for the analysis of organization of statements in messages. A more indepth analysis of teachers' statements was not possible. Getting sufficient data in each category was a concern because the research literature showed that teachers and students perceived negatively did not interact frequently. By the time enough data were collected for all categories of the teacher behavior instrument it was not possible to continue videotaping. Students were preparing for speeches. If data collection began earlier in the semester, if more teachers were observed, more data might have been collected. The six week time period seemed long enough to collect ample data for all analyses.

Another reason for the small amount of data to identify the ways teachers organized their statements was because the majority of

teachers' messages contained only one statement. Then, too, a small number of messages contained three or more statements. Examining the organization of statements had to be limited to messages where there were only two statements.

A second problem area was related to teachers' use of the categories. Two teachers did not use statements that could be .coded in the negative affect categories (rejects, rejection with correction and criticizes). Both teachers were observed approximately seven times, and never used negative statements with students rated high nor students rated low.

A third problem concerned the presence of video equipment in the classroom. Some teachers and students appeared to be nervous in front of the camera. Their continued apprehension throughout the taping was not anticipated. In the future, more sophisticated taping procedures i.e., filming behind one way mirrors might eliminate the apprehension. Maybe if teachers and students did not have to look at equipment as they talked, they might feel more relaxed.

These problem areas did contribute to the findings reported in this investigation. Some of the problems can be eliminated in future research if more data are collected.

Implications for Future Research

This investigation probably has raised more questions than it answered. However, the findings indicate that more research is needed. The methodology used in this study was designed to efficiently address the research questions and test the hypotheses of this study.

To those ends, the methodology was appropriate. An instrument was developed that was both reliable and valid. The instrument was designed to determine whether teachers perceived their students as acceptable or unacceptable communicators. By using this instrument, the researcher can say with confidence that teachers'perceptions of acceptable and unacceptable classroom communication behaviors were restricted to specific areas. Also, a teacher behavior observation instrument was designed to meet the needs of the research experiment and the college classroom. Last, data were collected in classrooms using video equipment to be sure of getting all teacher and student messages during interaction. Using this methodology to answer the questions of this dissertation provided information that will contribute to the knowledge of teachers' verbal messages and their perceptions of students.

The area where continued research is necessary is the organiation and content of teachers' statements. With additional data, researchers can examine microscopically teachers' statements. There appears to be plenty of research on the types of statements teachers communicate, but little if any of how teachers organize these messages . Looking at message organization should tell us more about the way teachers talk to their students.

In future research, consideration might be given to other ways of identifying patterns that exist in teachers' messages. Statements in messages might be coded two or three different ways to determine the different functions of statements. When examining these data,

the coders indicated that some statements could be coded several different ways. This kind of coding might have revealed the different ways teachers use statements. Once the organizational patterns of teachers' messages are determined, meaningful hypotheses can be tested. However, more descriptive analysis of teachers' messages is necessary.

In future research of this kind, more data must be collected. While the methodology used to collect data was designed to get ample data, there was not enough data to examine patterns. However, there was enough data to meet the assumptions of the statistical tests. Researchers should consider observing more than ten teachers or observing teachers for longer periods of time. In this study, only 30 minutes segments during the class hour were filmed. Filming took place at different times during a six week time period. If other researchers observe classes for 45 minutes at a time, or observe classes more frequently, the collection of more data might be possible.

Researchers also might consider doing descriptive analyses of verbal behaviors of teachers in disciplines other than communication. Later, comparisons between communication teachers and other teachers can be made. If the findings indicate that teachers are different from teachers in other disciplines, using communication teachers to examine communication behavior might be inappropriate.

Overall, research investigating communication in college classrooms should be continued. Generally, college teachers do not receive the training for teaching that elementary or secondary school teachers do. This lack of formal training might be a significant factor in the way college teachers interact with their students. Only additional research at this level and comparative research across grade

levels will help to confirm or deny this assumption.

Conclusion

This study attempted to determine whether teachers used verbal statements with students rated high on the Student Classroom Communication Behavior Scale that were different from the verbal statements they used with students rated low on the Student Classroom Communication Behavior Scale. The hypotheses that were tested indicated that teachers did not vary the statements they used when talking to the two different groups of students. However, descriptions of message organization suggest that teachers organize their messages according to their perceptions of students. As the result of this study, the findings reported and the questions raised indicate that more research is necessary.

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APPENDIX A

STUDENT CLASSROOM COMMUNICATION BEHAVIOR SCALE

STUDENT'S NAME _____

INSTRUCTOR'S NAME _____

SECTION NUMBER _____

STUDENT CLASSROOM COMMUNICATION BEHAVIOR SCALE

Directions: Below you will find several semantic differential scales related to different aspects of classroom communication behavior of students. Circle the number that most closely corresponds to your rating of the student.

Student initiated interaction with teacher
(asking questions, sharing ideas)

willing	9	8	7	6.	5	4	3	2	1	unwilling
frequent	9	8	7	6	5	4	3	2	1	infrequent

Student response style to teacher
(answering questions)

eager	9	8	7	6	5	4	3	2	1	indifferent
appropriate	9	8	7	6	5	4	3	2	1	inappropriate
voluntary	9	8	7	6	5	4	3	2	1	compulsory

Student interaction with classmates

attentive	9	8	7	6	5	4	3	2	1	inattentive
willing	9	8	7	6	5	4	3	2	1	unwilling
active	9	8	7	6	5	4	3	2	1	passive

Please do not write below this line

APPENDIX B

TEACHER BEHAVIOR OBSERVATION SYSTEM

TEACHER BEHAVIOR OBSERVATION SYSTEM

Positive Affect Statements

1. Praises or encourages student or behavior: enthusiastic acceptance of student's response

2. Listens to, helps, supports, nurtures student, accepting, helping response; also listening to recitation

3. Accepts or uses student's answer or idea

Negative Affect Statements

4. Rejects student's idea

5. Rejects student's idea and corrects it

6. Criticizes or justifies authority, disapproves of or is dissatisfied with student's behavior, but does not reject student.

Neutral-Affect Statements

7. Asks questions about content (what? where? when?), wants to find out whether student knows and understands material

8. Asks questions about content that stimulates thinking (why? how?), encourages student to seek explanations, to reason, to solve problems

9. Lectures, gives facts or opinions about content, gives information in discussion, recitation, or committee meeting.

10. Gives directions, commands, or orders with which student is expected to comply

APPENDIX C

MEMORANDUM TO INSTRUCTORS PARTICIPATING
IN STUDY

MEMORANDUM

TO: Graduate Assistants

FROM: Ina Siler

RE: Participation in my dissertation research project

At the beginning of the semester, I talked to you briefly about participaing in a research project related to my dissertation. The purpose of the research is to examine teacher-student interactions in the classroom. To observe these interactions, I will need to videotape and audiotape several 30 minute segments of your class. The taping will occur between the sixth and twelfth weeks of the semester. This does not mean that I will be taping your class every time it meets during this period. Sometimes I will only tape your class once a week. The amount of time I spend taping your class will depend upon how long it takes to get enough data for my study. However, taping will stop at the end of the twelth week.

There are several things I need you to do in relation to the study. First, please announce to your students that I might be taping their class during the following weeks. Indicate to them, that they will not be asked to do anything special. Classes should be conducted as though I were not there. If your students decide they do not want their class to be taped, please let me know.

Second, I need each instructor to complete a Student Classroom Communication Behavior Scale for each student in his or her class. The purpose of this form is to get a general idea of the kinds of communication behaviors students exhibit in your classes. Please return these forms to me within the week. I need this information before taping the classes.

Third, when the taping is completed, I will hold a debriefing session for the entire group and give you a chance to view the tapes of your classes.

Prior to taping your class, I will contact each of you to ask about your lesson plans. I am interested in taping classes where interaction will be occurring. If you are 1-cturing, giving examinations or listening to speeches, I will not tape your class.

Last, I want to thank you very much for helping me with my research. I want to assure you of the confidentiality of the research. These tapes are for my research purposes only. They will not be used to evaluate you personally nor your teaching.

If you have any questions, please feel free to contact me.

APPENDIX D

CODING FORM FOR RESEARCHER

Instructor's Name _____

Tape # _____

Student Name

Feet #	M1	M2	M3	M4		Rejects ideas	Rejects ideas with correction	Criticizes or justifies authority	Praises or Encourages	Listens to accepts ideas	Uses student's ideas	Asks questions about content	Asks questions to stimulate thinking	Lectures, gives info or opinions	Gives directions & orders

Key Words:
Feet #

Student Name

Feet #	M1	M2	M3	M4

Key Words:
Feet #

Student Name

Feet #	M1	M2	M3	M4

Key Words:

APPENDIX E

CODING FORM FOR CODERS

INSTRUCTOR'S NAME _____TAPE NO._____

Message Number	Statements in Message

INSTRUCTOR'S NAME